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Original Research Article

## Knowledge, attitude and behavior of women towards abnormal menstrual bleeding and its impact on quality of life

Binti R. Bhatiyani\*, Shrikant V. Dhumale, Pandeewari B.

Department of Obstetrics and Gynecology, ESIPGIMSR Andheri, Mumbai, Maharashtra, India

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**\*Correspondence:**

Dr. Binti R. Bhatiyani,  
E-mail: [bintirlb@yahoo.co.in](mailto:bintirlb@yahoo.co.in)

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### ABSTRACT

**Background:** Abnormal menstrual bleeding has a major impact on a woman's quality of life. Any intervention therefore should aim to improve this rather than focusing on the amount of menstrual blood loss. The aim of this study was to gain an in depth understanding of women's current knowledge, attitudes and beliefs around abnormal menstrual bleeding. Also, to understand how it affects their lives, while identifying current misconceptions and gaps in knowledge and their expectations and attitudes towards the treatment so that treatment can address their most bothersome complaint.

**Methods:** A total of 200 women, between 18-55 years of age, not on any hormonal treatment attending the gynaecology OPD at a tertiary care centre between Jan 2017 to May 2017 were interviewed by a questionnaire. Women who had undergone hysterectomy were excluded from the study.

**Results:** Of the 200 women interviewed, 49 women felt that their bleeding was heavy and formed the heavy menstrual bleeding group (HMB) while 151 women who perceived their bleeding to be normal formed the normal bleeding group. In the (HMB) group, a significantly greater proportion of women identified their menstrual bleeding as being an inconvenience and a disruption to their lives. HMB also significantly affected their relationships, social life and productivity at work place.

**Conclusions:** Despite its common occurrence, awareness and understanding of HMB and its treatment within the survey population was poor.

**Keywords:** Menorrhagia, Menstrual flow, Quality of life

### INTRODUCTION

Heavy menstrual bleeding is a common gynaecological condition.<sup>1</sup> Traditionally research on HMB has objectively measured menstrual loss and labelled heavy bleeding as more than 80ml blood loss per cycle.<sup>2</sup> Women's perception of what is normal regarding menstruation depends largely on their understanding of menstruation and what they perceive its function to be.<sup>3</sup> It is difficult to measure menstrual blood loss objectively and the quantitative criteria do not take into account the quality of life which is significant.<sup>2,4</sup> Abnormal bleeding could vary from irregular bleeding to heavy menstrual

bleeding and it not only affects patients QoL but can also be a financial burden.<sup>2</sup> It is important for health care professionals (HCP) to understand each woman's point of view to improve patient satisfaction. Recent research in the area of abnormal uterine bleeding has recognised the importance of 'patient experience' as an outcome that should be measured.<sup>5</sup>

For clinical purposes, Nice defines heavy menstrual bleeding as excessive menstrual blood loss which interferes with the woman's physical, emotional, social and material quality of life, and which can occur alone or in combination with other symptoms. Any interventions

should aim therefore to improve quality of life measures.<sup>6</sup> When measured quantitatively as blood loss more than 80 ml, its prevalence has been found to range from 9 to 14%, yet when measured qualitatively, its prevalence has been found as high as 52%.<sup>1,8</sup> There is a lot of confusion regarding the nomenclature and potential causes of abnormal menstrual bleeding. Keeping this in mind FIGO FMDG group has now developed a new classification system for causes of abnormal uterine bleeding.<sup>9</sup>

A study by Matteson et al investigated whether the questions used by health care professionals (HCPs) to diagnose HMB adequately covered the aspects of women's lives that were impacted by this condition.<sup>6</sup> This was done in conjunction with qualitative research to explore the effects that women felt HMB had on their lives. The results identified a number of areas not covered by standard HCP questioning, and recommended additional areas of questioning on which to focus.<sup>6</sup> These areas included: time taken to soak through a large sanitary pad, frequency of rest room visits to check or change sanitary protection, frequency of passing blood clots. Despite providing useful information, this study investigated a small (n=25) non-random sample, which limited the extent to which the study population could be considered representative and therefore, the ease with which the findings could be generalized.<sup>6</sup>

Other studies that have assessed the effect of HMB on QoL have found similar results in terms of the areas of women's lives that are affected which include social life, relationships and daily activities.<sup>10,11</sup> Despite being informative, few studies have looked at these aspects in detail. Thus, there is a need to identify the knowledge gaps about how HMB affects women's lives so that the appropriate treatment and support can be offered.

## METHODS

The objective of this study was to gain an in depth understanding of women's current knowledge, attitudes and beliefs pertaining to heavy menstrual bleeding (HMB). Also, to understand how it affects their lives, while identifying current misconceptions and gaps in knowledge and their expectations and attitudes towards the treatment so that treatment could address their most bothersome complaint.

The study population was recruited via a questionnaire to patients who presented to the OPD with various gynaecological complaints. Exclusion criteria were women who had undergone hysterectomy or were not willing to participate. Participants were women in the age group of 18-55 years, and were not currently taking HRT. Questions were designed to cover the following topic areas within HMB

- Impact of HMB on QoL (Quality of life)
- Current awareness and knowledge of HMB

- Diagnosis and interaction with health care professionals in relation to HMB
- And awareness about the treatment modalities.

Abnormal menstrual bleeding was defined subjectively as bleeding which led to disruption of normal activities as per NICE. Majority of the women felt their bleeding was normal when the bleeding lasted for 4 to 5 days and they used 2 to 3 sanitary pads per day. The women who perceived their blood loss to be normal were grouped together in the normal bleeding group and those who perceived their bleeding to be heavy were grouped in the heavy menstrual group (HMB). Informed consent was taken from all women.

## Statistical analysis

All the data was recorded on a specially prepared proforma and discrete categorical data was presented as n%; Chi-square test and Fischers exact test was applied for comparison between the two groups of normal bleeding and abnormal bleeding. Statistical significance was set at  $p < 0.05$

## RESULTS

A total of 200 women met the eligibility criteria and went on to fully complete the questionnaire. All the women felt that it is important to have menses as it is a monthly cleaner and many of them said that decreased flow or absence of menses might lead to weight gain.

Out of the 200 women recruited, 49 felt their bleeding was above average and formed the heavy menstrual bleeding (HMB) group while 151 women perceived their bleeding to be normal and formed the normal menstrual bleeding group. The baseline characteristics were similar in the two groups. Majority were in the 20 to 40-year age group and had 2 to 4 children (Table 1).

When asked what bothers them the most, the response was varied in the normal and the heavy bleeding group. Majority of women in the heavy bleeding group quoted irregularity (73.4%) and heaviness (79.5%) as the most bothersome complaint. Other significant complaints were pain in 42% and mood changes. Whereas in the normal bleeding group majority quoted mood changes as the most bothersome complaint (35%) (Table 2).

## Impact of HMB on QoL

More women in the heavy menstrual flow group identified their menstrual cycle as being an inconvenience and disruption to their lives compared to those women with perceived normal menstrual flow.

In the heavy menstrual bleeding group, 83% of women stated that HMB impacted upon their daily activities. Further questioning showed that the impact of heavy menstrual bleeding stretched across multiple aspects of

women's lives including social life, relationships and work. Significantly higher proportion of women (81%)

felt physically weak and unable to carry on day to day activities during days of heavy bleeding.

**Table 1: Baseline data (n=200). The baseline characteristics of the women in the two groups were comparable i. e. age, parity, BMI, educational level was comparable in the normal and abnormal bleeding. Majority of women were in 20 to 40-year group and had 2 to 4 children.**

	Normal bleeding group(n=151)	Abnormal bleeding (n=49)	Total 200	Chi square (p value)
<b>Age</b>				
21-30	59(39%)	12(24.4%)	71(35.5%)	3.15(0.075)
31-40	45(29.8%)	16(32.6%)	61(30.5%)	
41-50	30(19.8%)	14(28.5%)	44(22%)	
51-60	15(9.9%)	9(18.3%)	24(12%)	
<b>Parity</b>				
0-2	114(75.4%)	35(71.4%)	149(73%)	0.32(0.57)
3-4	35(23.1%)	14(28.5%)	49(24.5%)	
5 or more	2(1.3%)	0	2(1%)	
<b>Education</b>				
Illiterate	18(11.9%)	14(28.5%)	32(16%)	7.6(0.0057)
Undermatic	38(25.1%)	14(28.5%)	52(25.5%)	
Matric	41(27.1%)	8(16.3%)	49(24.5%)	
Senior sec	20(13.2%)	3(6.1%)	23(11.5%)	
Graduate and above	34(22.5%)	10(20.4%)	44(22%)	
<b>BMI</b>				
18-25kg/m2	101(66.8%)	31(63.2%)	132(66%)	0.16(0.68)
26-30	41(27.1%)	12(24.4%)	53(26.5%)	
>30	9(5.9%)	6(12.2%)	15(7.5%)	

**Table 2: What bothers you the most?**

	Normal bleeding group (n=151)	Abnormal bleeding group (n=49)	Total (n=200)	Chi square (p value)
Pain	25(16.5%)	21(42.8%)	46(23%)	23.93(<0.0001)
Heaviness	7(4.6%)	39(79.5%)	46(23%)	117.3<0.0001
Mood changes	53(35%)	18(36.7%)	71(37.5%)	7.4(0.0064)
Irregularities	5(3.3%)	36(73.4%)	41(20.5%)	111.1(<0.0001)
Breast pain	9(5.9%)	7(14.2%)	16(8%)	3.4 (.06)
Others	67(44.3%)	2(4%)	69(34.5%)	26.57(<0.0001)
Nil complaints	15(9.9%)	0	15(7.5%)	

### Social life

In the heavy menstrual bleeding group, 89% of women stated that they tend not to participate in social activities when their period is heavy.

A high proportion of women in this group also felt that their heaviest menstrual flow days impacted on the type and colour of the clothes they wore. They also felt less confident and less attractive during days of heavy flow. All values were significantly higher in the heavy menstrual bleeding group than normal bleeding group

### Relationships

Significantly more women in the heavy menstrual bleeding group stated that their periods impacted on their relationships compared to women in the normal menstrual loss group.

A large proportion of these women stated that they avoided sexual activity when their period was heavy. 38% of women avoided sexual activity during heavy bleeding. They also felt that their heaviest flow days had an impact on their relationship with their partners.

**Table 3: Effect of menstrual bleeding on QoL.**

	Normal bleeding n=151	Abnormal bleeding n=49	Total n=200	Chi square
Disruption in normal activities	75(49.6%)	41(83.6%)	116(58%)	17.56(p<0.001)
Limitation of work	75(49.6%)	39(79.5%)	114(57%)	13.51(P<0.001)
Skip social activities	74(49%)	44(89.7%)	118(59%)	25.44(p<0.001)
Avoid travel	75(49.6%)	46(93.8%)	121(60.5%)	30.25(p<0.001)
Avoids family/friends/get together	67(44.3%)	39(79.5%)	106(53%)	18.42(p<0.001)
Isolation at home	45(29.8%)	29(59.1%)	74(37%)	13.7(p<0.001)
Change in colour and type of clothes	60(39.7%)	32(65.3%)	92(46%)	9.29(p<0.002)
Change in the type of under wear	70(46.3%)	34(69.3%)	104(52%)	5.7(p<0.016)
Feeling less confident or attractive	45(29.8%)	25(51%)	70(35%)	7.3(p<0.006)
Feeling physically weak	75(49.6%)	40(81.6%)	115(57.5%)	15.4(p<0.001)
Mood changes	45(29.8%)	29(59.1%)	74(37%)	13.7(P<0.001)
Myths related/religious beliefs	72(47.6%)	20(40.8%)	92(46%)	0.7(p 0.4)
Avoid sexual activity during periods	23(15.2%)	19(38.7%)	42(21%)	20.18(p<0.001)
Whether they feel shy discussing with health care professional	45(29.8%)	19(38.7%)	64(32%)	1.3(p 0.24)

### Work

Heavy menstrual bleeding has an impact on productivity with 79.5% of women in the HMB group stating that heavy bleeding affected their performance at work. The proportion of women who felt that heavy bleeding affected their work was significantly higher in the HMB group. Outside of work majority preferred to avoid travel on days of heavy bleeding

### Management of AUB

Women affected by HMB often adapt life style changes in order to manage their condition. In this study on enquiry, 65% women in the heavy bleeding group

answered that on heavy days they would avoid certain colours or clothes to cope with the bleeding. In terms of social life 79.5% of women in the heavy bleeding said they avoided family gatherings.

### Awareness and knowledge of AUB

Despite being a common condition the awareness among the women about the condition and its treatment was low (Table 4). There was no significant difference in both the groups regarding the awareness level. Majority correlated heavy bleeding with malignancy and felt that heavy bleeding is something serious and needs to be treated. Even the women who had awareness about the condition, the awareness about the treatment options was poor.

**Table 4: Knowledge regarding abnormal menstrual bleeding (n=200). Knowledge of women about abnormal bleeding, its treatment and consequences.**

	Normal bleeding (n=151)	Abnormal bleeding (n=49)	Total (n=200)	Chi square p value
Are they aware of AMB	135 (89.4%)	46 (93.8%)	181 (90.5%)	0.861 (0.35)
Knowledge about treatment options available	33 (21.8%)	14 (28.5%)	47 (23.5%)	0.928 (0.33)
Knowledge about association with malignancies	68 (45%)	29 (59.1%)	97 (48.5%)	2.96 (0.08)
Knowledge about consequences of HMB	12 (7.9%)	10 (20.4%)	22 (11%)	5.8 (0.015)
Do they think HMB is something serious and needs to be treated	134 (88.7%)	48 (97.9%)	182 (91%)	3.8 (0.05)

### DISCUSSION

This study supports the findings of previous research showing heavy menstrual bleeding to be a common

problem which can impact on many aspects of a woman's life including social, relationships and work.<sup>4,6,13</sup> The patient centric approach is reflected in the definition of heavy menstrual bleeding by Nice which takes into

account the woman's perceptions of menstrual blood loss and the subsequent impact on their quality of life.<sup>7</sup>

The results from this study show that significantly more women in the heavy bleeding group identified their bleeding to be problematic than the normal bleeding group. In a study by Bitzer et al, a total of 6179 women, 18 to 55 years of age, open to using hormonal contraception were studied regarding their perception of HMB and its impact on QoL. Of the women who perceived themselves as having HMB flow, a significantly greater proportion identified their menstrual bleeding as problematic compared to women who perceived having normal menstrual flow.

The diagnosis of HMB extended to multiple aspects of the women's lives, including social life, relationships and work with a significantly greater proportion of women reporting negative effects in these domains in the HMB group.<sup>4</sup> So patient centric understanding of the complaint may lead to better understanding of patient's illnesses and can contribute to improved patient satisfaction with the results of treatment.<sup>4</sup>

When asked about their awareness regarding heavy menstrual bleeding majority of the women (93.8%) in this study were aware about abnormal bleeding but as such they were not knowledgeable about the treatment available and the consequences of AMB. There was no significant difference in both groups regarding their awareness level. This is similar to the study done by Harpreet kaur et al.<sup>12</sup>

Also, in the multicentre study by Bizer et al, awareness among the survey participants was low.<sup>4</sup> When the global study population was asked if they had heard of HMB, 34% of them answered no or do not know. Even in the awareness group, understanding of abnormal bleeding and available treatment options was lacking.<sup>4</sup>

Esmail et al conducted a cross sectional survey of 400 college students to assess their awareness about menstrual abnormalities and health seeking behaviour. Students awareness of menstrual abnormalities was poor (29%). Only a few of them (10.5%) decided to seek help for menstrual abnormalities.<sup>13</sup> Due to myths attached to menstruation as something unhygienic, many a times heavy menstrual bleeding may go undiagnosed and untreated leading to an unnecessary suffering in women.<sup>2</sup>

## CONCLUSION

Thus, such studies reinforce the need to consider woman's perception of menstrual blood loss and its effect on QoL while deciding her care. There is a need to raise awareness among women about abnormal menstrual bleeding and its treatment options.

In order to improve patient satisfaction with her care it is important that the areas which are most bothersome be addressed.

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