ORIGINAL ARTICLE

An interventional study to assess the quality of life in abnormal uterine bleeding in a medical college teaching hospital

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ABSTRACT

Abnormal uterine bleeding has a major impact on a woman's quality of life. This study aimed to improve quality of life rather than focusing on the amount of blood loss and also to understand how it affects their quality of life. Patients demographic and therapeutic details were collected (name, age, sex ect. for 80 patients suffering from abnormal uterine bleeding are taken from medical college teaching hospital. The quality of life in patients with abnormal uterine bleeding is assessed using SF 36 questionnaire. Then the follow up is done for quality of life in patients with abnormal uterine bleeding using SF 36 questionnaire. This study showed that before counseling the age group of 51-60 years have less physical functioning when compare to other groups and BMI of 0<18.5 have more improvement is seen in physical functioning after counselling. The age group of 21-30 years has less limitation due physical functioning when compare to other groups. Before counselling the age group of 21-30 years felt more pain, was decreased after counselling. Regarding the Quality of life, the impact of AUB encompasses all aspects of QOL with eight health domains measured by SF-36 result shows 32% of the patients quality of life is poorest. Provided counselling to the patients proved to be beneficial in improving their health related QOL. This leads to a conclusion that the public as well as policy makers need to increase awareness of the impact of this common benign gynecologic disorder.

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INTRODUCTION

Abnormal uterine bleeding(AUB) or dysfunctional uterine bleeding (DUB) is defined as an irregular uterine bleeding that occurs in the absence of recognizable pathology of pelvic, medical disease or pregnancy. It reflects in the ordinary cyclic pattern disruption of ovulatory hormonal production to the endometrial lining [1, 2].

The bleeding is unpredictable and can be excessively heavy or light and maybe prolonged, frequent, or random [1].

Quality of life

Quality of life is the degree of the well-being of individuals and societies.

Measurement of health-related Quality of Life of a patient is an essential fact in their treatment regimen. It helps in judging the quality of life experienced by the patient who is suffering from the ail-

ment. It can also help the physician in treating other health factors of the individual, i.e. emotional, mental, psychological, etc. which are directly related to their health aspects [3].

It is well known that AUB patients are highly vulnerable to psychological and emotional issues due to their critical capability of being the independent and increasing need for assistance in performing daily tasks. Measuring the quality of life of AUB patient will benefit the patient as the physician can pinpoint the right characteristics of the patient's disease that must seek immediate attention [3].

Measuring the quality of life of the patient usually involves multiple domains; this study involved the physical, emotional, energy, social, pain and general health dynamics of the patient [3].

Quality of life assessment aids the health care professional in determining the severity of the disease and therefore assists them in planning the right kind of treatment regime suitable for them [3].

SF-36 questionnaire

The Short-Form Health Survey Questionnaire (SF-36) is a health measure used to find out the quality of life in specific populations.

It is also useful in service planning and to measure the impact of social and clinical interventions.

Culture-specific data is needed to calculate SF-36 norm-based scores [4].

The SF-36 is a 36 item scale, which measures eight provinces of health status:

A. Physical functioning (10 items) which assess limitations to daily activities.

B. Physical role limitations (four items) which identifies limitations in work or activities caused by physical health.

C. Body pains (two items) will grade pain and limitations from that place.

D. General health (five items) examines health perception.

E. Energy/vitality (four items) comprises fatigue and energy scales.

F. Social functioning (two items) will assess social limitations.

G. Emotional role limitations (three items) will identify limitation in work or activities due to emotional health.

H. Mental health(five items) will grade feelings of anxiety and depression [5].

These eight scores range from 0-100. Obtaining a high score indicates good or better health. A differ-

ence in 5 points in some domain indicates minimal change and the 10-point difference indicates moderate change [5].

Many women having HMB feel sit as burden and inconveniences in their daily activities. The SF-36 questionnaire will give an idea about the patient quality of life in women with AUB. It helps in better understanding of patient's illness based on AUB and will give improved patient satisfaction with treatment results. It is shown to be responsive and reliable in women with AUB [3].

METHODOLOGY

The data regarding the patient's information was collected by studying the case records and entered in a short form-36 health survey questionnaire. Eighty patients from the Gynaecology ward were selected based on the inclusion and exclusion criteria. The data were evaluated for the assessment of the quality of life; a statistical test was applied to find significant relations between before and after counselling.

Methods of data collection

Study Design, So urce Of Data And Study Setting

An interventional study was conducted on the inpatients admitted in The Oxford Medical College And Research Centre.

Sampling size and technique

A sample size of 80 patients of female was included in the study. The subjects were included by Simple random sampling technique in this study [6] .

Sampling Criteria

Patients with abnormal uterine bleeding were included in the study

Pregnant women, Pre menarche and post-menopausal women were excluded.

Collection of data and method of data analysis

1. Formal permission was obtained from the Institutional Ethics Committee of The Oxford Medical College Hospital And Research Centre.

2. Consent was obtained from the patient through informed consent form in English or Kannada language.

3. Demographics details of the patient (Name, Age, Sex, etc.) and the data regarding diagnosis were collected in a pre-designed data record form.

4. To evaluate the quality of life of patient using short-form -36 questionnaire.

5. Reassessment is done after one month using short-form -36 questionnaire.

Table 1: Distribution of patients based on physical functioning of SF-36 questionnaire

Variables (n=80)	Before (Mean)	After (Mean)	T-Value	P-Value
Education status				
10th std and below (n=60)	22.66	69.16	-7.15864	0.00948
Above 10th std (n=20)	33	76.25		S
BMI				
0<18.5(Under weight) n=6	27.50	77.50	-15.47778	0.00001
18.6-25(normal) n=27	22.59	65.74		S
25.1-30(overweight) n=31	29.03	72.90		
>30 (obese) n=16	21.56	73.44		
Age				
21-30(n=10)	25.50	73	-31.69317	0.00001
31-40(n=36)	27.50	71.81		S
41-50(n=26)	22.80	68.85		
51-60(n=8)	22.50	71.25		
Residential area				
Rural (n=21)	23.81	68.81	-26.14389	0.00073
Urban(n=59)	25.76	71.69		S

Table 2: Distribution of patients based on limitations due to physical health of SF-36 questionnaire

Variables (n=80)	Before (Mean)	After (Mean)	T-Value	P-Value
Education status				
10th std and below (n=60)	32.5	65.61	-9.27831	0.005709
Above 10th std (n=20)	26.25	71.25		
BMI				
0<18.5(Under weight) n=6	29.16	66.66	-22.47191	0.00001
18.6-25(normal) n=27	28.70	62.96		
25.1-30(overweight) n=31	28.03	68.55		
>30 (obese) n=16	28.13	71.06		
Age				
21-30(n=10)	22.50	62.50	-9.15684	0.00048
31-40(n=36)	26.38	70.83		
41-50(n=26)	30.77	65.38		
51-60(n=8)	37.50	60.88		
Residential area				
Rural (n=21)	28.57	59.52	-7.10397	0.009622
Urban(n=59)	28.38	69.69		

6. The obtained data were subjected to statistical analysis by using MS Excel software.

7. The duration of data collection was six months [7].

RESULTS AND DISCUSSION

A sample size of 80 patients of female was included in the study. The subjects were included by Simple random sampling technique in this study. Patients with abnormal uterine bleeding were included in the study. Pregnant women, Pre menarche and post-menopausal women were excluded.

Our present study showed that before counselling the age group of 51-60 years have less physical functioning when compare to other groups, and BMI of 0<18.5 have more improvement is seen in physical functioning after counselling and p-value is found to be significant [8].

Table 3: Distribution of patients based on Limitation due to emotional problems of SF-36 questionnaire

Variables (n=80)	Before (Mean)	After (Mean)	T-Value	P-Value
Education status				
10th std and below (n=60)	34.31	71.58	-13.80658	0.002603
Above 10th std (n=20)	36.5	76.75		
BMI				
0<18.5(Under weight) n=6	33.16	72.50	-50.54405	0.00001
18.6-25(normal) n=27	35.74	71.63		
25.1-30(overweight) n=31	34.19	73.93		
>30 (obese) n=16	35.31	73.06		
Age				
21-30(n=10)	33.20	63.30	-10.36856	0.000024
31-40(n=36)	36	75.08		
41-50(n=26)	33.19	75.77		
51-60(n=8)	37.25	65.50		
Residential area				
Rural (n=21)	28.52	68.29	-7.26992	0.0092
Urban=59)	37.12	74.51		

Table 4: Distribution of patients based on Energy of SF-36 questionnaire

Variables (n=80)	Before (Mean)	After (Mean)	T-Value	P-Value
Education status				
10th std and below (n=60)	41.25	52.25	-4.43774	0.023606
Above 10th std (n=20)	36.50	57.75		
BMI				
0<18.5(Under weight) n=6	45	56.66	-5.12944	0.001079
18.6-25(normal) n=27	38.15	57.96		
25.1-30(overweight) n=31	42.25	50.48		
>30 (obese) n=16	37.19	51.25		
Age				
21-30(n=10)	35.50	63	-3.60715	0.005635
31-40(n=36)	38.61	55.42		
41-50(n=26)	42.69	49.04		
51-60(n=8)	43.75	48.75		
Residential area				
Rural (n=21)	40	54.76	-18.09249	0.001521
Urban(n=59)	40.08	53.22		

Our present study showed that before counselling the age group of 21-30 years have less limitation due to physical functioning when compare to other groups, and Education status of above 10th std have more improvement is seen in limitation due physical functioning after counselling p-value is found to be significant.

Our present study showed that before counselling the Residential area of rural people have less limitation due emotional problems when compare to other groups, and Education status of above 10th std have more improvement is seen in limitation due to emotional problems after counselling and p-value is found to be significant.

Our present study showed that before counselling the age group of 21-30 years have less energy when to compare to other groups and age group of 21-30 years have more improvement is seen in energy after counselling and p-value is found to be significant.

Table 5: Distribution of patients based on Emotional well being of SF-36 questionnaire

Variables (n=80)	Before (Mean)	After (Mean)	T-Value	P-Value
Education status				
10th std and below (n=60)	42.15	61.03	-3.56651	0.035207
Above 10th std (n=20)	42	75.8		
BMI				
0<18.5(Under weight) n=6	44	66	-11.25497	0.000015
18.6-25(normal) n=27	37.93	67.33		
25.1-30(overweight) n=31	44	61.74		
>30 (obese) n=16	44.81	65.63		
Age				
21-30(n=10)	34.40	78.80	-3.73627	0.004832
31-40(n=36)	41.22	67.44		
41-50(n=26)	42.69	59.23		
51-60(n=8)	47.13	52.75		
Residential area				
Rural (n=21)	40	64.62	-16.24628	0.001884
Urban(n=59)	42.86	64.76		

Table 6: Distribution of patients based on Social functioning of SF-36 questionnaire

Variables (n=80)	Before (Mean)	After (Mean)	T-Value	P-Value
Education status				
10th std and below (n=60)	42.03	60.33	-3.86734	0.030412
Above 10th std (n=20)	46.95	69.75		
BMI				
0<18.5(Under weight) n=6	36	62.66	-9.2466	0.000045
18.6-25(normal) n=27	42.56	63.67		
25.1-30(overweight) n=31	45.42	60.29		
>30 (obese) n=16	43	65.69		
Age				
21-30(n=10)	36.60	77.80	-4.04728	0.003373
31-40(n=36)	44.58	63.11		
41-50(n=26)	42.85	59.92		
51-60(n=8)	47	55.75		
Residential area				
Rural (n=21)	39.57	63.19	-8.23199	0.007219
Urban(n=59)	44.57	62.50		

Our present study showed that before counselling the BMI of 0<18.5 people have less social functioning when compare to other groups and age group of 21-30 years have more improvement is seen in social functioning after counselling and p-value is found to be significant [9] .

Our present study showed that before counselling the age group of 21-30 years have more pain when compare to other groups and age group of 21-30 years have decreased the pain after counselling and p-value is found to be significant.

Our present study showed that before counselling the age group of 21-30 years have less general health when compare to other groups, and BMI of 0<18.5 have more improvement is seen in general health after counselling and p-value is found to be significant [10] .

Quality of life of abnormal uterine bleeding patients

The following data is collected based on responses provided by the patients in the SF-36 questionnaire.

Table 7: Distribution of patients based on Pain of SF-36 questionnaire

Variables (n=80)	Before (Mean)	After (Mean)	T-Value	P-Value
Education status				
10th std and below (n=60)	38.95	63.50	-3.852	0.030633
Above 10th std (n=20)	46.30	75.30		
BMI				
0<18.5(Under weight) n=6	38.83	68.5	-5.06842	0.001146
18.6-25(normal) n=27	33.04	66.04		
25.1-30(overweight) n=31	48.16	65.64		
>30 (obese) n=16	42.19	67.94		
Age				
21-30(n=10)	28.50	77.80	-5.06842	0.001146
31-40(n=36)	45.56	68.05		
41-50(n=26)	37.81	61.54		
51-60(n=8)	44.38	61		
Residential area				
Rural (n=21)	38.14	65.48	-13.70202	0.002642
Urban(n=59)	41.73	66.80		

Table 8: Distribution of patients based on General health of SF-36 questionnaire

Variables (n=80)	Before (Mean)	After (Mean)	T-Value	P-Value
Education status				0.041475
10th std and below (n=60)	47.05	53.78	-3.25227	
Above 10th std (n=20)	44.25	60.15		
BMI				
0<18.5(Under weight) n=6	39	68	-2.74783	0.016694
18.6-25(normal) n=27	41.19	58		
25.1-30(overweight) n=31	48.68	50		
>30 (obese) n=16	43.63	49.44		
Age				
21-30(n=10)	28.00	66.70	-1.92033	0.05161
31-40(n=36)	45.44	51.78		
41-50(n=26)	47.38	53.62		
51-60(n=8)	50.63	48.75		
Residential area				
Rural (n=21)	45.33	52.29	-6.80633	0.010456
Urban(n=59)	44.08	54.52		

(Table 1).

Our present study showed that before counselling the age group of 51-60 years have less physical functioning when compare to other groups, and BMI of 0<18.5 have more improvement is seen in physical functioning after counselling and p-value is found to be significant. (Table 2).
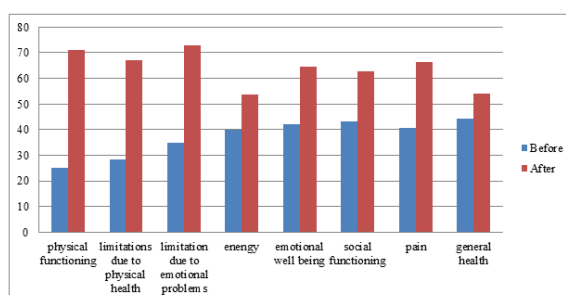
Our present study showed that before counselling the age group of 21-30 years have less limitation due to the physical functioning when compare to other groups, and Education status of above 10th std have more improvement is seen in limitation due to physical functioning after counselling, the p-value is found to be significant [11] (Table 3).

Our present study showed that before counselling the residential area of rural people have fewer limitations due to emotional problems when compare to other groups, and Education status of above 10th std have more improvement is seen in limitation due to the emotional problems after counselling and p-value is found to be significant. (Table 4).

Table 9: comparison of SF-36 sub domains with Before and After counselling

SF-36 Sub Domain	Scale	Before counselling (Mean)	After counselling (Average)
1.Physical functioning	0-100	25.25	70.93
2.Limitations due to physical health	0-100	28.43	67.02
3.Limitation due to emotional problems	0-100	34.86	72.87
4.Enengy	0-100	40.06	53.62
5.Emotional well being	0-100	42.11	64.72
6.Social functioning	0-100	43.26	62.68
7.Pain	0-100	40.78	66.45
8.General health	0-100	44.41	53.93

Figure 1: Comparison of SF-36 sub-domains with Before and After counselling

Our present study showed that before counselling,

the age group of 21-30 years have less energy when to compare to other groups and age group of 21-30 years have more improvement is seen in energy after counselling and p-value is found to be significant. (Table 5).

Our present study showed that before counselling the age group of 21-30 years have less emotional well being when to compare to other groups and age group of 21-30 years have more improvement is seen in energy after counselling and p-value is found to be significant (Table 6).

Our present study showed that before counselling the BMI of 0<18.5 people have less social functioning when compare to other groups and age group of 21-30 years have more improvement is seen in social functioning after counselling and p-value is found to be significant (Table 7).

Our present study showed that before counselling the age group of 21-30 years have to experience more pains when compared to other groups and age group of 21-30 years have decreased the pain after counselling and p-value is found to be significant (Table 8).

Our present study showed that before counselling the age group of 21-30 years have less general health when compare to other groups, and BMI of 0<18.5 have more improvement is seen in general health after counselling and p-value is found to be significant. [Table 9] [Figure 1]

CONCLUSION

Regarding the quality of life, the impact of AUB encompasses all aspects of QOL with eight health domains measured by SF-36 result shows 32% of the patients quality of life is worst. The QOL was relatively lower in patients before counselling. Providing counselling to the patients would prove to be beneficial in improving their health-related QOL.

The public, as well as policymakers, need to increase awareness of the impact of this common benign gynecologic disorder. It may result in the positive health and social impact.

complete our research and for the constant support and cooperation.

Conflict of Interest

The authors declare that they have no conflict of interest for this study.

REFERENCES

[1] Khafaga A, Goldstein SR. Abnormal Uterine Bleeding. Obstetrics and Gynecology Clinics of North America. 2019;46(4):595–605. Available from: 10.1016/j.ogc.2019.07.001.

[2] Gokyildiz S, Aslan E, Beji NK, Mecdi M. The Effects of Menorrhagia on Women's Quality of Life: A Case-Control Study. ISRN Obstetrics and Gynecology. 2013;2013:1–7. Available from: 10.1155/2013/918179.

[3] Bhatiyani BR, Dhumale SV, B P. Knowledge, attitude and behaviour of women towards abnormal menstrual bleeding and its impact on quality of life. International Journal of Reproduction, Contraception, Obstetrics and Gynecology. 2017;6(10):4291–4291. Available from: 10.18203/2320-1770.ijrcog20174130.

[4] Billow MR, El-Nashar SA. Management of Abnormal Uterine Bleeding with Emphasis on Alternatives to Hysterectomy. Obstetrics and Gynecology Clinics of North America. 2016;43(3):415–430. Available from: 10.1016/j.ogc.2016.04.002.

[5] Matteson KA, Abed H, Wheeler TL, Sung VW, Rahn DD, Schaffer JI, et al. A Systematic Review Comparing Hysterectomy with Less-Invasive Treatments for Abnormal Uterine Bleeding. Journal of Minimally Invasive Gynecology. 2012;19(1):13–28. Available from: 10.1016/j.jmig.2011.08.005.

[6] Miller JD, Bonafede MM, Cai Q, Pohlman SK, Troeger KA, Cholkeri-Singh A. Economic Evaluation of Global Endometrial Ablation Versus Inpatient and Outpatient Hysterectomy for Treatment of Abnormal Uterine Bleeding: US Commercial and Medicaid Payer Perspectives. Population Health Management. 2018;21(S1). Available from: 10.1089/pop.2017.0172.

[7] Nouri M, Tavakkolian A, Mousavi SR. Association of dysfunctional uterine bleeding with high body mass index and obesity as a main predisposing factor. Diabetes & Metabolic Syndrome: Clinical Research & Reviews. 2014;8(1):1–2. Available from: 10.1016/j.dsx.2013.10.013.

[8] Singh S, Best C, Dunn S, Leyland N, Wolfman WL, Wolfman W, et al. Abnormal Uterine Bleeding in Pre-Menopausal Women. Journal of Obstetrics and Gynaecology Canada. 2013;p. 30939–30946.

[9] Hurskainen R, Leminen. Tranexamic acid for the treatment of heavy menstrual bleeding: efficacy and safety. International Journal of Women's Health. 2012;p. 413–413. Available from: 10.2147/ijwh.s13840.

[10] Capezzuoli T, Vannuccini S, Donati C, Cencetti F, Bernacchioni C, Rizzello F, et al. Poster SEUD; 2019.

[11] Thakre SB, Thakre SS, Ughade S, Thakre AD. Urban-rural differences in menstrual problems and practices of girl students in Nagpur, India. Indian Pediatrics. 2012;49(9):733–736. Available from: 10.1007/s13312-012-0156-8.

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Cite this article: BN Manikanth, Revathi Sindhu Konudula, Banu Juveria, James Jennilyn, Baby John Sheba, G Parthasarathy. **An interventional study to assess the quality of life in abnormal uterine bleeding in a medical college teaching hospital** . Int. J Pharm. Res. Life Sci. 2020; 8(2): 89-96.

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