Effect of Conservative Nursing Management on Symptoms of Hemorrhoids during Late Pregnancy

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Abstract: *Background: Pregnancy predispose to symptomatic hemorrhoids, being the most common ano-rectal disease at these stages. Purpose of the study: was to study the effect of conservative nursing management on symptoms of hemorrhoids during late pregnancy.*
Design: A quasi- experimental study design with pre and posttests was used (with comparing the study and control groups). A purposive sample of 110 women attending antenatal care visits at MCH centers was selected. Instrument: three instruments.1-Interviewing questionnaires. 2-questionnaire about complain and symptoms of hemorrhoids.3- Assessment sheet about life - style habits. Result revealed that study group's participants have experienced fewer haemorrhoidal symptoms than the control group's participants and there were correlation between socio-demographic data, obstetric history and degree of haemorrhoidal symptoms severity. Conclusion: Based on of the current findings, both study hypotheses are accepted. Hypothesis I: Study group participants had experienced significant fewer haemorrhoidal symptoms than the control group's participants .Hypothesis II: there was correlation between socio-demographic data, obstetric history and degree of haemorrhoidal symptoms severity. Recommendations: Based on the findings of the present study, these are 1 - Replication of the current study using larger samples.2-Disseminating health education about conservative measures during antenatal visits.3- Incorporating healthy habits in the pre-marital and pre –conception counseling as a preventive way.
Keywords: *hemorrhoids, pregnancy and conservative management.*

I. Introduction

Hemorrhoids also called piles are swollen and inflamed veins in the anus and lower rectum. Hemorrhoids may result from straining during bowel movements or from the increased pressure on these veins during pregnancy, among other causes. At present, the etiology is not well known but predisposing factors for this condition are well recognized. A history of constipation due to poor diet, such as a low fiber diets with low fluid, or bowel disease associated with an increase in intra-abdominal pressure or diarrhea, are known to be linked to symptomatic hemorrhoids. Determinant factors could be summarized as: hereditary, bowel transit disorders and female genital cycles. Supporting the latter, studies suggested that hormones such as follicle stimulant hormone, prolactin and steroids could be responsible for some of the symptoms [3].

Pregnancy and vaginal delivery predisposes women to develop hemorrhoids because of hormonal changes and increased intra-abdominal pressure [2]. It has been estimated that 25% to 35% of pregnant women are affected by this condition. In certain populations, up to 85% of pregnancies are affected by hemorrhoids in the third trimester [1]. Pregnancy, labour, delivery, and puerperium have a strong influence on this condition. Sphincteral muscles and pelvic floor structures could be modified in tone and position during pregnancy, delivery and puerperium leading to an alteration of the normal functioning in the haemorrhoidal cushion, predisposing to symptoms [4].

'Conservative nursing management' is the umbrella term used for simple yet effective measures to reduce the symptoms of haemorrhoids. For example, lifestyle changes including improving anal hygiene, corrective toilet positioning (knees higher than hips, leaning forwards, elbows placed on knees), not sitting on the toilet for long periods of time, not straining on the toilet during defecation and dietary measures, such as increasing the intake of dietary fiber and fluid to prevent constipation, should be recommended as part of the health promotion offered to the patient. Avoidance of constipation and diarrhea can reduce the size of haemorrhoids and therefore limit the patient's symptoms. Such simple measures can significantly reduce the symptoms associated with haemorrhoids [8].

Treatment during pregnancy is mainly directed to the relief of symptoms, especially pain control. For many women, symptoms will resolve spontaneously soon after birth, and so any corrective treatment is usually deferred to sometime after birth. Thus, the aim of this review is to evaluate the efficacy of conservative management of piles during pregnancy and the puerperium [9].

II.   Purpose of the study

Was to study the effect of conservative nursing management on symptoms of haemorrhoid during late pregnancy

III.   Research Hypotheses

Study group participants will experience significant fewer haemorrhoidal symptoms than the control group's participants.

There will be correlation between socio-demographic data, obstetric history and degree of haemorrhoidal symptoms severity.

IV.   Methods

Research Design: A quasi- experimental study design was used.

Setting: The present study was carried out at Maternal and Child Health Centers (MCH) at Shebin El-Koom (Qebli and Bahari).

Sample: A purposive sample from women attending antenatal care visits at Maternal and Child Health Centers at Shebin El-Koom.

Inclusion criteria of study participants: Pregnant women at the 3rd trimesters of pregnancy. Women with symptomatic hemorrhoids

Exclusion criteria: Women at the first and second trimesters of pregnancy. Women free from symptoms of hemorrhoids

Sample size: The sample size was calculated based on (power and sample size calculation version 3, 2011) 110 women were recruited for this study {55 subjects for each group}. The sample sizing was assumed that this intervention was effective in reducing the clinical signs identified by the healthcare provider of haemorrhoidal disease, risk ratio (RR) 0.07 with 80% power (Quijano et al., 2005).

Data Collection Instruments:

Instrument I: Socio-Demographic Data Questionnaire: This instrument was devoted to obtain complete data about women.

Instrument II: Complains and symptoms of hemorrhoids it include: Part (1) as: onset of hemorrhoids, aggravation by pregnancy, signs and symptoms of hemorrhoids (Pain, Bleeding, Purities and Prolapse).

Part2: **Characteristic of Hemorrhoids: Hemorrhoid Stages Assessment:** It contained multiple choice questions in which the researchers asked the patients to determine the stage of hemorrhoid by selecting the suitable symptoms from the following: (1) Hemorrhoids that bleed but not prolapsed.(2) Hemorrhoids that prolapsed and retracted on their own (with or without bleeding). (3) Hemorrhoids that prolapsed but must be pushed back in by a finger.(4) Hemorrhoids that prolapsed and cannot be pushed back in.

Instrument III: Life - Style Habits Assessment tool: this instrument used to evaluate the effect of conservative nursing management on symptoms of hemorrhoids

Validity of Instruments: The validity of the instruments was ascertained by five experts (four experts from the Faculty of Nursing and one expert from Faculty of Medicine) who reviewed for the content and internal validity. They also were asked to judge the items for completeness and clarity. Suggestions were incorporated into the instrument.

Reliability of Instruments: Test – retest reliability was applied by the researcher for testing the internal consistency of the instrument. It was done through the administration of the same instrument to the same participants under similar conditions. Scores from repeated testing were compared.

Scoring system of instrument II for symptoms severity: Each item was scored 3 for severe and 2 for moderate and 1 for mild. The maximum score of all symptoms was 18 and the minimum was 6. It was categorized into three levels, mild from 6 to 10 and moderate from11 to 14 and severe from 15 to 18.

Scoring system of instrument III for life –style habits: Each item was scored 2 for done and 1 for not done. The total score of all items was be represented to be 100% and categorized into three levels, unsatisfactory (<60%) and average from 60% to less than 75% and satisfactory ($\geq$ 75%)

Administrative Approval: A formal letter from Faculty of Nursing, Menoufia University was submitted to MCH centers at Shebin El-Koom. An officially permission was obtained to carry out the study from the directors of the above-mentioned settings.

Ethical Considerations: Approaches to ensure ethics were considered in the study regarding confidentiality and informed consent. Confidentiality was achieved by the use of locked sheets with the names of participants replaced by numbers. All participants were informed that the information they provided during the study would

be kept confidential and used only for statistical purposes and after finishing the study, the findings would be presented as a group data with no personal participant's information remained.

Pilot Study: Piloting was conducted to test the applicability of the instruments, the feasibility of the study and estimate the time needed for data collection. It was conducted on 10 % of the total sample (11 women). Based on the pilot study results; the researcher rephrased some questions and sentences then set the final fieldwork schedule. Sample of the pilot study was excluded from the main study sample.

Study Maneuver

1-The Preparatory Phase: An extensive review related to the study area was done including electronic dissertations, available books and articles. A review of literature to formulate knowledge base relevant to the study area was also done. This was necessary for the researchers to get acquainted with, and oriented about aspects of the research problem, as well as, to assist in the development of the data collection instruments and the preparation of pictures and pamphlet.

2-Assessment phase: The aim of this phase was to collect patient's data as well as to identify individualized learning needs in order to design the suitable instructions and conservative management. The researcher introduced herself to the participants and provided verbal explanation of the study. Informed consent was obtained from all participants. Each participant was informed that participation in the study was voluntary and she can withdraw at any time. The researcher used instrument I to collect basic data. Sample was divided into two groups randomly.

3-Implementation phase: Step I: The study started at January 2017 and ended at January 2018.The researcher went to the MCH center three days' a week (Saturday, Monday, and Wednesday). The researcher went to one center a week then change. The researcher start work at 9am till 1:30pm. The participants, flow rate was around 20 women per day (MCH Qebli center) and was about 30 women per day (MCH Bahari center). Face-to-face teaching method was used to achieve individualized instructions as well as to solve personal problems.

Step II: The researcher used questionnaires to evaluate the effect of conservative nursing management on symptoms of hemorrhoids**.** Each woman was handed the questionnaire and answer it under observation of the researcher. While illiterate women the researcher wrote, their answers and each woman took about 7-10 minute to answer the questionnaire.

Step III: During this phase, the developed conservative measures were provided to pregnant women with symptoms of hemorrhoids according to individualized needs. The researcher stressed on certain life habits that should be avoided as not standing or sitting long periods, dietary management consisting of adequate fluid and fiber intake to relieve constipation and eliminate straining at defecation and instructions about hygienic care which include, avoid using dry toilet paper in cleaning up the anus as the roughness of the paper tends to scratch or irritate weak rectal nerves and muscles. Each session lasted 20-30 minutes.

Step IV: The researcher give sessions in an organized sequence. The first sessions were for knowledge, following were the two practices sessions, the next were the two life style habits sessions.

(**Sessions**)

1-Knowledge Session: 2 sessions: Each session took about 20-30 minutes. Number of participants about (7:8) participants

Sessions Objectives: To upgrade participants' general knowledge of hemorrhoids. To orient participants about nature, causes of hemorrhoids and when to call for medical help.

Sessions Outline: Definition of hemorrhoids, Types of hemorrhoids, Causes of hemorrhoids, Risk factors of hemorrhoids, Signs and symptoms, diagnosis of hemorrhoids, Complications and management of hemorrhoids, Nursing instructions to be followed and asking for medical help.

Teaching Methods: Lecture, Group discussion

Teaching Aids: Data show presentation.

Practical Sessions: 2 sessions this pointed out conservative nursing management for symptoms of hemorrhoids. Each one took about 30 minutes. Number of participants about (7:8) participants

Session Objectives: To disseminate appropriate practices of conservative nursing management for symptoms of hemorrhoids

Sessions Outline: Hygienic care, Natural home remedies, Sitz baths and kegel exercise

Teaching Methods: Lecture, Group discussion

Teaching Aids: Data show presentation, Pictures

Life - style habits sessions: 2 sessions which stressed on correcting life style habits during pregnancy to reduce symptoms of hemorrhoids. It took about 20-30 minutes. Number of participants about (7:8) participants

Session Objectives: To correct life style habits

Sessions Outline: Life style habits, Toilet habits, Diet& dietary habits

Teaching Methods: Lecture, Group discussion
Teaching Aids: Data show presentation, Pictures, figures and graphs
4-Evaluation phase: During this phase, the follow up limited in the final session. Each woman was evaluated two times during the study period utilizing the study tools. The first evaluation was done one month after (ten weeks) implementation of the program, and the second evaluation was done two weeks after the first evaluation. The same data collection tools were used in the two evaluations.

Statistical design: Upon completion of data collection, the collected data were organized, tabulated; each answer sheet was coded and scored. The researcher coded the data into a coding sheet so that data could be prepared for computer use and statistically analyzed using SPSS version 25 (Statistical Package for the Social Studies created by IBM, Illinois, Chicago, USA.

Analysis: For numerical values the mean and standard deviations were calculated. Chi square test was used to detect the statistical differences between variables. When chi square test was not suitable due to presence of observations with small number, Monte Carlo exact test was used. The correlation between study variables was calculated using Pearson's correlation coefficient the level of significance was adopted at $p<0.05$

V.   Results

Table 1: Socio-demographic characteristics of studied groups

Socio-demographic		Intervention		Control	
		N	%	N	%
Age	Less than 25	11	20	15	27.2
	25 to 35	24	43.6	25	45.4
	<35	20	36.3	15	27.2
Residence	Rural	43	78.1	45	81.8
	Urban	12	21.8	10	18.1
Education	Illiterate	3	5.4	7	12.7
	Primary	11	20	8	14.5
	Intermediate	30	54.5	26	47.2
	High Education	11	20	14	25.4
Occupation	House wife	34	61.8	39	70.9
	Employee	21	38.1	16	29.1

Table (1): Shows the comparison between intervention group and control group as regard to socio-demographic characteristics. The highest percentage of study sample 43.6%, 45.4% were in the age group 25to 35 in the intervention and control group respectively. The majority of them 78.1%, 81.8% were from rural area of intervention and control group respectively. Regarding to studied sample education more than half (54.5% of intervention group have intermediate education compared to 47.2% of control group. About 61.8%, 70.9% of intervention and control group are housewife.

Table2: Obstetric history of studied groups

Obstetric history		Group			
		Intervention Group		Control Group	
		No.	%	No.	%
No of normal births	None	8	14.5	11	20
	One	12	21.8	14	25.4
	Two	10	18.1	13	23.6
	Three or more	25	45.4	17	30.9
Type of delivery	Normal	27	49.1	30	54.5
	Cesarean	20	36.3	10	18.1
	Normal and cesarean	0	0	4	7.2
Abortion	Yes	3	5.4	5	9.1
	No	44	80	39	70.9
Twins	Yes	5	9.1	8	14.5
	No	42	76.3	36	65.4
Prolonged labor	Yes	20	36.3	15	27.2
	No	27	49.1	29	52.7
Hemorrhoids	YES	55	100	55	100

Table (2): Shows the comparison between intervention group and control group as regard to obstetric history. The table reveals that 45.4% of intervention group have three or more normal births compared to 30.9% of control group have three or more normal births. 49.1%, 54.5% of intervention and control group have normal delivery, while 36.3%, 18.1% of intervention and control group have cesarean delivery. About 80%, 70.9% of

intervention and control group don't have previous abortion respectively. More than two third of intervention group don't get twins while 65.4% of control group don't get twins before. Regarding to signs of prolonged labor 49.1%, 52.7% of intervention and control group don't have signs of prolonged labor. All studied sample of intervention and control group 100% have hemorrhoids history.

Table3: Present history of studied groups

History		Group			
		Intervention Group		Control Group	
		No.	%	No.	%
Symptoms increase with pregnancy	Yes	49	89.1	51	92.7
	No	6	10.9	4	7.2
Symptoms	Pain	55	100	55	100
	Bleeding	19	34.5	23	41.8
	Edema	35	63.6	31	56.3
	Itching	46	83.6	48	87.2

Table (3): Shows the comparison between intervention group and control group as regard present history. 89.1% of intervention group suffer from symptoms of hemorrhoids with pregnancy compared to 92.7% of control group have symptoms of hemorrhoids with pregnancy. More than two third of intervention and control group have symptoms of hemorrhoids increased with labor. Regarding to pain symptoms, all studied sample of intervention and control group have pain symptoms. 63.6%, 56.3% of intervention and control group have symptoms of edema respectively. More than eighty percentage of intervention and control group have symptoms of itching respectively.

Table (4): Descriptive life style habits among intervention and control groups at the pre intervention :

Life style habits	Intervention Group		Control Group	
	No.	%	No.	%
Standing long time				
Yes	30	54.5	34	61.8
No	25	45.4	21	38.1
Dietary habits				
Good	7	12.7	10	18.2
Bad	48	87.2	45	81.8
Bowel habits				
Good	7	12.7	11	20
Bad	48	87.2	44	80
Stress				
Yes	49	89.1	51	92.7
No	6	10.9	4	7.2
Personal hygiene				
Good	9	16.4	8	14.5
Bad	46	83.6	47	85.4
Applied exercises				
Yes	8	14.5	11	20
No	47	85.4	44	80
Therapeutic habit				
As patient's need	35	63.6	31	56.3
As doctor 's order	20	36.4	24	43.6

Table (4) Shows comparison between intervention group and control group as regard life style habits which reveals the majority of the patients 54.5%, 61.8% was standing for long period in the studied group and control group respectively. While patients having a history of stress were 89.1% and 92.7% in the studied and control groups. Only 14.5 %, 20% were applied exercise in study and control groups. Meanwhile the majority of the sample had bad personal hygiene83.6% in study group & 85.4% in control group. The same table also shows that, bad dietary habits and bowel habits were applied equally in all patients (87.2 % in study group respectively, and 80%& 81.8 in control group). Relatively high percentages of the patients were using medication as patient's need about 63.6% not as doctor's order (43.6%).

Table (5): Mean practices of life style habits regarding study participants

Variables	Pre				Post				Follow up			
	Intervention		Control		Intervention		Control		Intervention		Control	
	X	Sd	X	Sd	X	Sd	X	Sd	X	Sd	X	Sd
Life style habits	3.9	1.5	4.1	1.3	8.5	.9	4.3	.7	8.1	.7	4.6	.5
F p	p= 0.3	t =0.4			P=0.0003	t =4.8			P=0.0001	t =5.3		
Anal hygiene	5.3	2.2	5.1	1.9	10.3	1.1	5.9	.9	9.8	1.3	5.4	.7
	P=0.7	t =0.23			P=0.0001	t= 5.1			P=0.0001	t= 4.6		
Toilet position	1.3	.4	1.5	.6	2.4	.8	1.7	.6	2.6	.4	1.9	.4
	P=0.6	t =0.26			P=0.02	t =3.2			P=0.01	t =3.4		
Diet	3.2	1.1	3.3	.9	5.3	.3	3.4	.7	4.9	.8	3.2	.4
	P=0.9	t =0.21			P=0.001	t =4.1			P=0.001	t= 3.9		

Table (5): Shows statistically significant improvements after the implementation of the conservative measures in study group. On the other hand there were deteriorations in control group after the routine care in MCH centers. As well there were statistically significant differences between the study group and control group which mean that patients who received conservative measures by correcting life style habits improved than those who received routine care. There were 3.5,8.5&8.1 at pre, post and follow up period of the program in the study group while in control group were 4.1,4.3&4.6 at pre, post and follow up of the routine care. There were highly statistically significant differences between study and control groups in other conservative measures as anal hygiene, toilet position and diet.
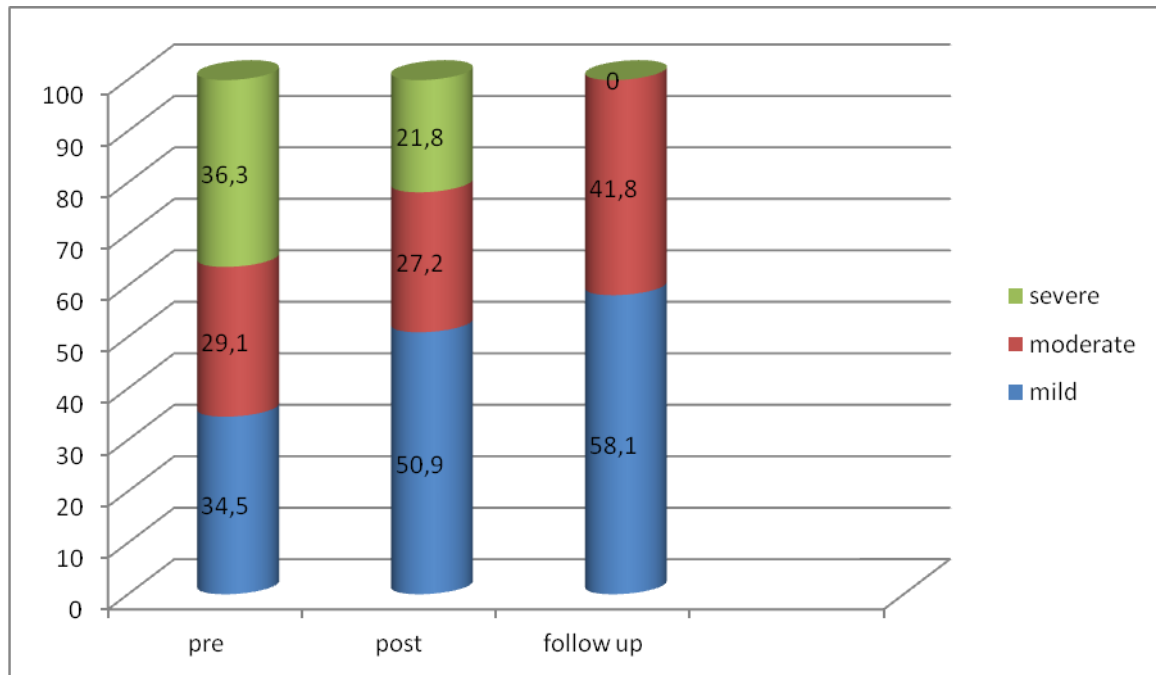
Figure (1): Frequency distribution of studied sample at intervention group according to severity of the symptoms.

Figure (1): Shows frequency distribution of studied sample at intervention group according to severity of the symptoms. The figure shows that 36.3%, 21.8% of intervention group have severe symptoms of hemorrhoids at pre, and post program respectively, While 34.5%, 50.9%, 58.1% of intervention group have mild symptoms of hemorrhoids at pre, post, and follow up the program respectively.
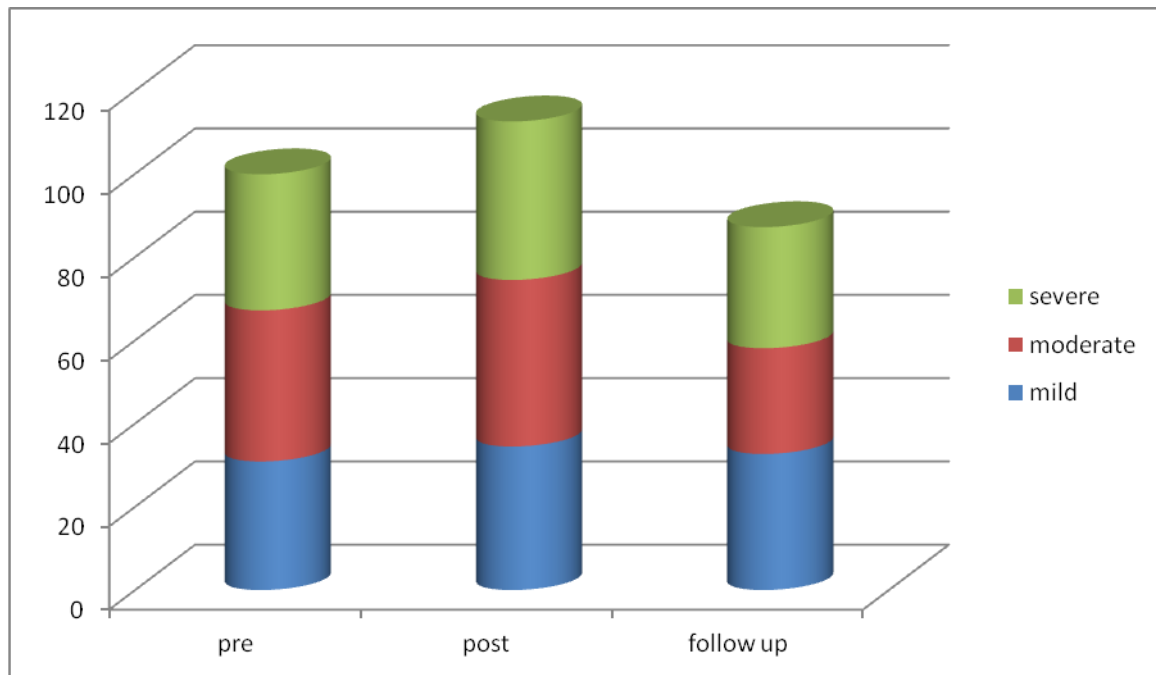
Figure (2): Frequency distribution of studied sample at control group according to severity of the symptoms

Figure (2): Shows frequency distribution of studied sample at control group according to severity of the symptoms. The figure shows that about one third of control group have mild symptoms of hemorrhoids at pre, post, and follow up the program respectively, While 32.7%, 25.4%, 29.1% of control group have severe symptoms of hemorrhoids at pre, post, and follow up the program respectively.

Table (6): Effect of the program on the degree of severity of both groups

Variables	Pre		Post		Follow up		Chi	P
	N	%	N	%	N	%		
Intervention group								
Mild	19	34.5	28	50.9	32	58.1	21.5	.0001
Moderate	16	29.1	15	27.2	23	41.8		
Severe	20	36.3	12	21.8	0	0		
Control group								
Mild	17	30.9	19	34.5	18	32.7	0.7	0.9
Moderate	20	36.3	22	40	21	38.1		
Severe	18	32.7	14	25.4	16	29.1		

Table (8): Study the effect of the conservative measures on the degree of severity of studied sample at intervention group. The table shoes that there were a statistical significant differences between effect of the routine care on the severity of symptoms of studied sample at intervention group at p=.0001. Study effect of the routine care on the degree of severity of studied sample at control group. The table shoes that there weren't a statistical significant differences between effects of the routine care on the severity of symptoms of studied sample at control group.

Table (9): Comparison of intervention group and control group according to their practice

Variables	Pre				Post				Follow up			
	Intervention		Control		Intervention		Control		Intervention		Control	
Unsatisfactory	26	47.2	25	45.4	11	20	21	38.2	8	14.5	18	32.7
Average	16	29.1	21	38.2	16	29.1	19	34.5	9	16.3	24	43.6
Satisfactory	13	23.6	9	16.3	28	50.9	15	27.2	38	69.1	13	23.6
TEST	X21.4		P 0.4		X27.3		P .02		X222.9		P .00001	

Table (9): Study improvement of studied sample at intervention group according to their practice pre, post and follow up. The table shows that 23.6%, 50.9%, 69.1% of intervention group were satisfied at pre, post, follow up the program, while 47.2%, 20%, 14.5% of intervention group were unsatisfied at pre, post, follow up the program .The table show that 16.3%, 27.2%, 23.6% of control group were satisfied at pre, post, follow up the program, while 45.4%, 38.2%, 32.7% of control group were unsatisfied at pre, post, follow up the program.

Table (10): Association between socio-demographic data and the severity of symptoms

Variables		Mild		Moderate		Severe		CHI Square	P-Value
		N	%	N	%	N	%		
Age	Less than 25	9	81.8	1	9.1	1	9.1	16.1	,002
	25 to 35	6	25	10	41.6	8	33.3		
	<35	4	20	5	25	11	55		
	Rural	16	37.2	11	25.5	16	37.2	1.2	.5
Residence	Urban	3	25	5	41.6	4	33.3		
Occupation	House wife	13	38.2	12	35.2	9	26.4	3.9	.1
	Employee	6	28.5	4	19	11	52.3		

Table (10): Shows the association between socio-demographic data of intervention group and the severity of symptoms. The table show that there were a statistically significant relation between age and severity of symptoms at p=.002. About 81.8% of intervention group> 25 had mild symptoms of hemorrhoids, 41.6% of intervention group25≥35 had moderate symptoms, while 55% of intervention group <35 had severe symptoms of hemorrhoids. Equal percent 37.2% of intervention group from rural area had mild and severe symptoms of hemorrhoids, compared to 41.6% of intervention group from urban areas had moderate symptoms. As regard to occupation 38.2% of house wife had mild symptoms, while more than half 52.3% of employee had severe symptoms of hemorrhoids.

Table (11): Association between socio-demographic data of control group and the severity of symptoms

		Mild 17		Moderate 20		High 18		Chi Square	P-Value
		N	%	N	%	N	%		
Age	Less than 25	5	33.3	7	46.6	3	20	7.1	
	25 to 35	9	36	10	40	6	24		
	<35	3	20	3	20	9	60		.1
Residence	Rural	12	26.6	17	37.7	16	35.5	2.1	.3
	Urban	5	50	3	30	2	20		
Occupation	House wife	10	25.6	16	41	13	33.3	2.02	
	Employee	7	43.7	4	25	5	31.2		.3

Table (11): Presents association between socio-demographic data of control group and the severity of symptoms. The table shows that there weren't a statistical significant relation between socio-demographic data of control group and the severity of symptoms. About 46.6% of control group> 25 had moderate symptoms of hemorrhoids, 40% of control group25≥35 had moderate symptoms, while 60% of control group <35 had severe symptoms of hemorrhoids. 37.7% of control group from rural area had moderate symptoms of hemorrhoids, compared to 50% of control group from urban areas had mild symptoms. As regard to occupation 41% of house wife had moderate symptoms, compared to 43.7% of employee had mild symptoms of hemorrhoids.

Table (12): Correlation between obstetric history and severity of symptoms

Items	Intervention group		Control group	
	R	P	R	P
Number of labors	.78	.007	.81	.006
Number of pregnancies	.81	.005	.41	.09
Gestational age	.86	.001	.89	.001

Table (12): Presents correlation between obstetric history and severity of symptoms. The table shows that there were a statistically significant relation between obstetric history and severity of symptoms of intervention, and control group at p>05 except for number of pregnancies for control group

VI.   Discussion

According to Quijano [12], Hemorrhoids are associated with prolonged straining secondary to constipation, diarrhea or raised intra-abdominal pressure as occurs in pregnancy and are common during pregnancy, delivery, and the puerperium. So, this conservative management was concerned with lifestyle changes including improving anal hygiene, corrective toilet positioning (knees higher than hips, leaning forwards, elbows placed on knees), not sitting on the toilet for long periods of time, not straining on the toilet during defecation and dietary measures, such as increasing the intake of dietary fiber and fluid to prevent constipation equally as reported by Ommer [10].

Previous studies have reported conflicting findings on the association between socio-demographic data and the severity of symptoms. The present study showed that there was a statistically significant relation between age and severity of symptoms. The younger pregnant (25 years old) had mild symptoms of hemorrhoids, (25≥35 years old) had moderate symptoms, while older (≥35 years old) had severe symptoms of hemorrhoids this finding comes with Hickey& Rabson , [8]who reported that the age weakens the body and this

can include the muscles around the anus . As well the occupation, the house wives had mild symptoms, while employee had severe symptoms of hemorrhoids due to the bad effect of standing for long periods and stress. This finding comes with Prysak [11] who reported that, a very common reason for heamorrhoids today is the stress that may have been endured over the years. As well, Frank [7] reported that, a common cause of heamorrhoids is simply the standing position, in which all blood above the rectum exerts pressure on the rectal and anal areas.

Consistent with previous study done by Migaly,[6] there was relationship between symptoms of hemorrhoids and obstetric history of pregnant women in this present study compared to the women in the control group, which could be a result of multiple pregnancies and labors. Due to pregnancy, some women suffer from hemorrhoids during their first pregnancy and those who have it once and been pregnant are more likely to get it during their next pregnancies. Furthermore, women may also get hemorrhoids during the second stage of labor, during childbirth. The results of the present study almost are supported by results of a study done by Wazir,[10] on 50 female to find out the correlation of female parity and heamorrhoids. The present study is also supported by a study done by Cataldo,[3] in Lithuania which examined the incidence of hemorrhoids during late pregnancy (44%pregnant for the first time, 56% repeated pregnancies) at a university hospital and outpatient clinics during the third trimester. Hemorrhoids were more prevalent in multi and grand multipara patients.

Regarding effect of conservative measures on the severity of hemorrhoids among women throughout the study phases, results of the present study reported that there were significant improvements after the implementation of the conservative measures in study group compared to control group after the routine care in MCH centers. The present study findings revealed that the effectiveness of conservative measures which include hygienic care as correcting toilet posture (squatting) protected pregnant women from the risk of a pelvic floor prolapse .This finding was supported by a study conducted by Domino, [6] who found that avoiding standing or sitting for long periods of time which caused pressure on the lower body and slow blood flow to the rectal veins, thus increasing the risk of hemorrhoids, dietary management including adequate fluid and fiber intake to relive constipation and avoid straining at defecation, exercise and sitz bath. This also comes on line with Frank, [7] who reported that instead of causing hemorrhoids eating adequate fiber to prevent hemorrhoids because fiber intake helps making a bowel movement easier not more difficult. As well Clinic, [5] who reported that increasing fluid intake to at least eight glasses of water each day helps softening the stool

VII.   Conclusion

Based on of the current findings, both study hypotheses are accepted.

Hypothesis I: Study group participants had experienced significant fewer haemorrhoidal symptoms than the control group's participants. The finding showed that the study group participants had experienced significant fewer haemorrhoidal symptoms compared to the control group.

Hypothesis II: there was correlation between socio-demographic data, obstetric history and degree of haemorrhoidal symptoms severity. The finding showed that there was correlation between socio-demographic data, obstetric history and degree of haemorrhoidal symptoms severity

VIII.   Recommendations

Based on the findings of the present study, the following recommendations are suggested:

Replication of the current study using larger samples.

Disseminating health education about conservative measures during antenatal visits.

Incorporating healthy habits in the pre-marital and pre –conception counseling as a preventive way.

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