REVIEW OF RESEARCH
ISSN: 2249-894X
IMPACT FACTOR : 5.2331(UIF)
VOLUME - 7 | ISSUE - 3 | DECEMBER – 2017

# PSYCHOLOGICAL AND SEXUAL IMPACT OF HYSTERECTOMY ON YOUNG PATIENTS IN MALWA REGION

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## ABSTRACT

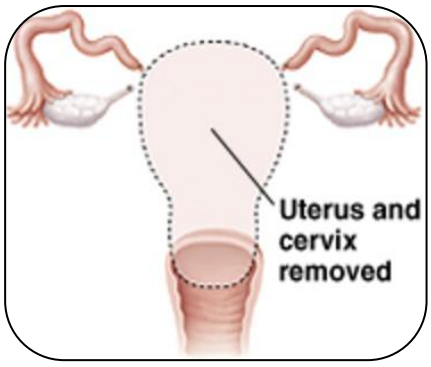
Now a day's hysterectomy has become a very common gynecological procedure.Uterus being considered as most valued organ in females. Hysterectomy may lead to significant psychological and sexual impact on the women undergoing this procedure at young age.

**KEYWORDS:** *Hysterectomy, Psychological Impact, Sexual Symptoms.*

## INTRODUCTION

Hysterectomy is the surgical removal of the uterus. In the total Hysterectomy the uterus and the cervix are removed. In some cases, the fallopian tubes are removed along with the uterus called as hysterectomy with bilateral salpingo-oophorectomy. Now days, hysterectomy have become a trendy procedure, there are many indications for hysterectomy like the conditions in which females may experience extreme pain and abnormal uterine bleeding which maybe because of endometriosis, malignancy or fibroids. Post partum hemorrhage and vaginal prolapsed are other indications for hysterectomy.

Uterus as well as ovaries plays an important role in controlling hormone levels in the body as estrogen & progesterone plays a major role on mood symptoms including depression and anxiety. Hysterectomy at a very young age before the natural menopause in women may cause physical, Psychological and sexual impact on women's health. Every person reacts differently and reactions are a combination of emotional and sexual responses. The patterns reported were increased anxiety stats, depressive illness and mood changes and acute psychotic illness[1]. Psychological symptoms may present in form of depressive feelings like sadness, hopelessness, diminished interest in activities, significant weight loss or weight gain, insomnia and anxiety like symptoms like palpitations, trembling, sweating, dizziness, fatigue, hot and cold flushes and even suicidal thoughts and emotional distress. These feeling maybe present before and after undergoing surgical procedure. Psychological disturbance in the form of depression and anxiety are also reported after tubal ligation.




Hysterectomy may be accompanied by alteration in the sexual health of the females. Those women who had undergone hysterectomy at a very young age experience less feminine and women feel that they are no longer complete women after loss of reproductive function after hysterectomy. Some women had an unsatisfactory maternal instinct. Few common sexual difficulties which are commonly faced are reduction in satisfaction in the relationship, reduced sexual responses affecting their relation to such an extent that the couple may have difficulty in resumption

of intimacy. The removal of ovaries at the time of hysterectomy is associated with greater deterioration of self-reported sexual function.[2] Regarding sexual problems there are mixed feelings ranging from improvement to no changes. As some people believe that women are no more attractive, feminine and sexual without uterus. While in some cases there is improvement in sexual life due to elimination of symptoms and improvement in physical health like dyspareunia, pain, dysmenorrhoea, fibroids and pelvic inflammatory disease. As literature reports conflicting results regarding the psychological outcomes of hysterectomy have been published. The aim of this research is to determine whether hysterectomy has any effect on psychology and sexual health of young women (less than 45 years) which will help in counseling patients after hysterectomy to provide a better quality of life.

## AIM

To study the psychological and sexual impact on hysterectomy patients in young age (30-45 years) in Malwa region.

## OBJECTIVES

1. To find the association between demographic profile with HAM-A, D, FSDS.
2. To find the association between the type of procedure and Psychological and sexual impact among cases.

## RESEARCH DESIGN AND DATA COLLECTION

**Study Design:** This cross-sectional study was carried out among the patients coming to IPD and OPD in the department of Obstetrics and gynecology and department of psychiatry.

**Unit of study:** Patient coming to OPD and IPD admitted for the procedure of hysterectomy were included in the study. Written informed consent for participation in the study was taken. A detailed history from all participants was taken. Participants were selected based on inclusion and exclusion criteria from OPD and IPD, department of obstetrics and gynecology and department of psychiatry. Socio –demographic profile was taken up and Psychological and sexual function assessment was done on HAM-A, HAM-D and the female sexual distress scale revised (FSDR-R; revised 2005).

**Ethical Clearance:** from AIMSR research and university ethics committee was taken before the conduct of study.

**Sample size:** Formula for quantitative observational study was used for sample size calculation. Sample size turned out to be 384 patients in each group. We enrolled 192 patients in each group for the study.

**Group 1 -** cases - 192 females who underwent hysterectomy.

**Group 2 –** control – 192 females were taken aging between 30-45 years that had not undergone hysterectomy.

**Inclusion Criteria:** Patients (cases) who gave consent to participate in the study were included in the age group of 30-45 years.

## Exclusion criteria:

1.Age less than 30 years and more than 45 years.
2.Past history of any psychiatry illness.
3.Past history of any major medical illness.
4.Patient deny to give consent.

## DATA ANALYSIS

**For estimation of level of association unpaired T test was used. P value <0.05 was taken as significant. Microsoft Excel 2013 was used to assess the data.**

**Table1: Relation of rural and urban people with HAM A, HAM D, FSDS 2005 score (Cases)**

| | Area | N | Mean | SD | t-test | p value | Sig. |
|---|---|---|---|---|---|---|---|
| HAM A | Rural | 107 | 14.67 | 3.73 | 1.558 | 0.121 | NS |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Urban | 85 | 15.45 | 3.05 | | | |
| HAM D | Rural | 107 | 15.99 | 3.11 | 3.018 | 0.003 | S |
| | Urban | 85 | 17.20 | 2.24 | | | |
| FSDS 2005 | Rural | 107 | 13.02 | 5.02 | 1.213 | 0.227 | NS |
| | Urban | 85 | 13.85 | 4.29 | | | |

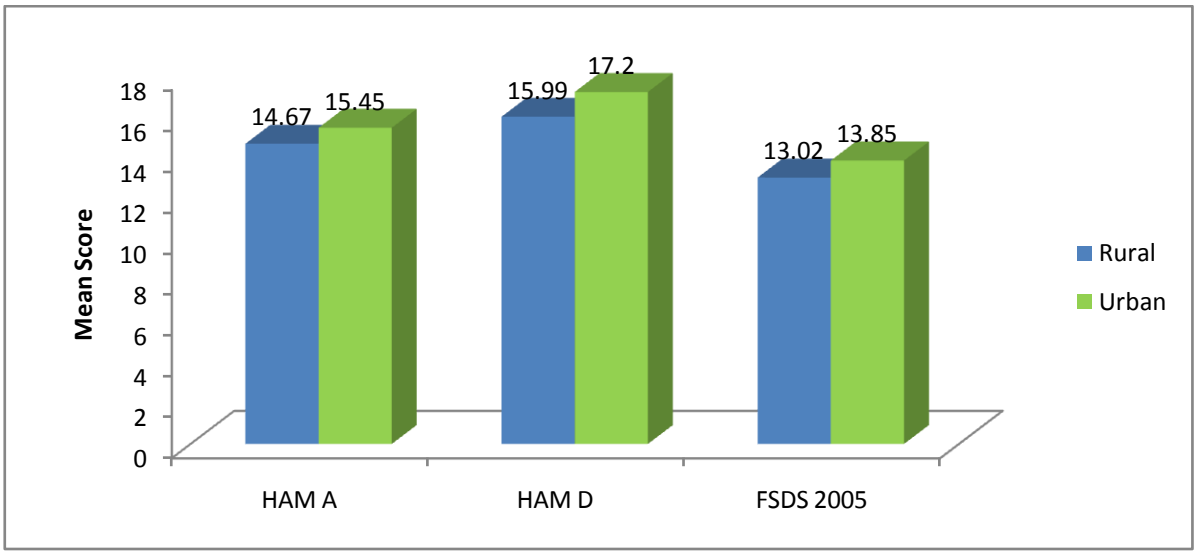



**Table2: Relation of rural and urban people with HAM A, HAM D, FSDS 2005 score (Control)**

| | AREA (R/U) | N | Mean | SD | t-test | p value | Sig. |
|---|---|---|---|---|---|---|---|
| HAM A | Rural | 100 | 3.80 | 2.32 | 0.784 | 0.434 | NS |
| | Urban | 92 | 4.07 | 2.45 | | | |
| HAM D | Rural | 100 | 5.14 | 2.64 | 0.394 | 0.694 | NS |
| | Urban | 92 | 5.00 | 2.25 | | | |
| FSDS 2005 | Rural | 100 | 4.33 | 2.78 | 0.080 | 0.446 | NS |
| | Urban | 92 | 4.15 | 2.76 | | | |

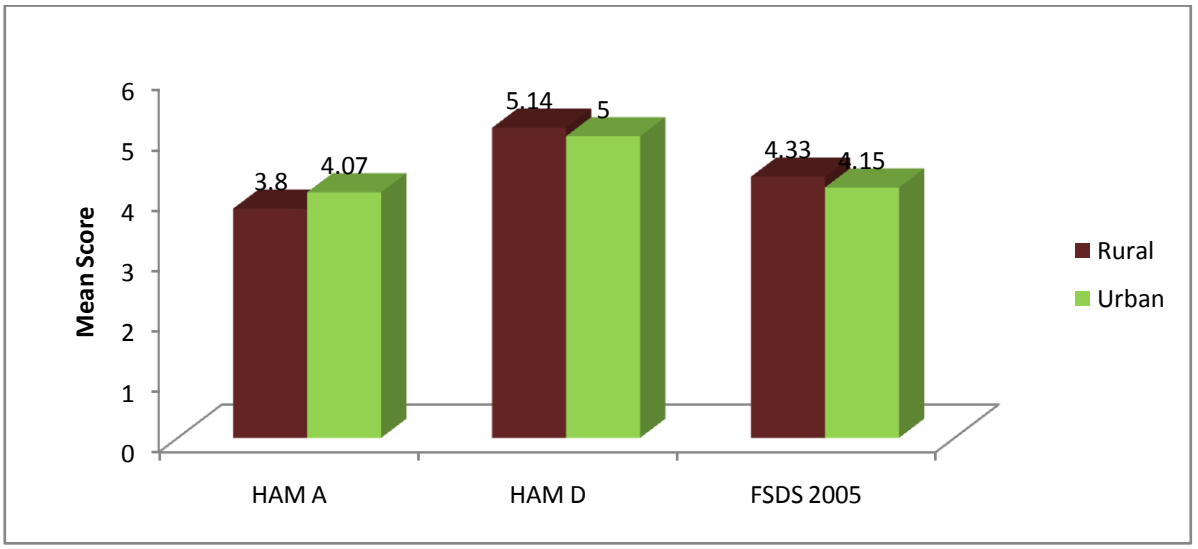



Table No. 1 & 2 shows the relationship of urban & rural areas with the HAM A, HAM D & FSDS scores. There were 107 cases and 100 controls residing in rural areas & 85 cases and 92

controls residing in urban areas. The mean HAM A score in cases in rural areas was 14.67+/-3.73 and in urban areas was15.45+/- 3.05. While in HAM D scale, the rural areas mean score was 15.99+/-3.11 while in urban areas was 17.20+/-2.24. On FSDS 2005 scale the mean score was 13.02+/-5.02 compared to 13.85+/-4.29 in urban areas.

**Table 3: Relation of kuppuswami score with HAM A, HAM D, FSDS 2005 score (Cases)**

| | Kuppuswami Score | N | Mean | SD | F-value | p value | Sig. |
|---|---|---|---|---|---|---|---|
| HAM A | 6-10 | 27 | 16.41 | 2.93 | 12.818 | 0.001 | HS |
| | 11-20 | 141 | 15.26 | 3.25 | | | |
| | 21-30 | 24 | 12.04 | 3.67 | | | |
| HAM D | 6-10 | 27 | 17.63 | 1.69 | 14.266 | 0.001 | HS |
| | 11-20 | 141 | 16.75 | 2.74 | | | |
| | 21-30 | 24 | 13.96 | 2.87 | | | |
| FSDS 2005 | 6-10 | 27 | 16.85 | 5.70 | 14.100 | 0.001 | HS |
| | 11-20 | 141 | 13.24 | 4.31 | | | |
| | 21-30 | 24 | 10.33 | 3.25 | | | |

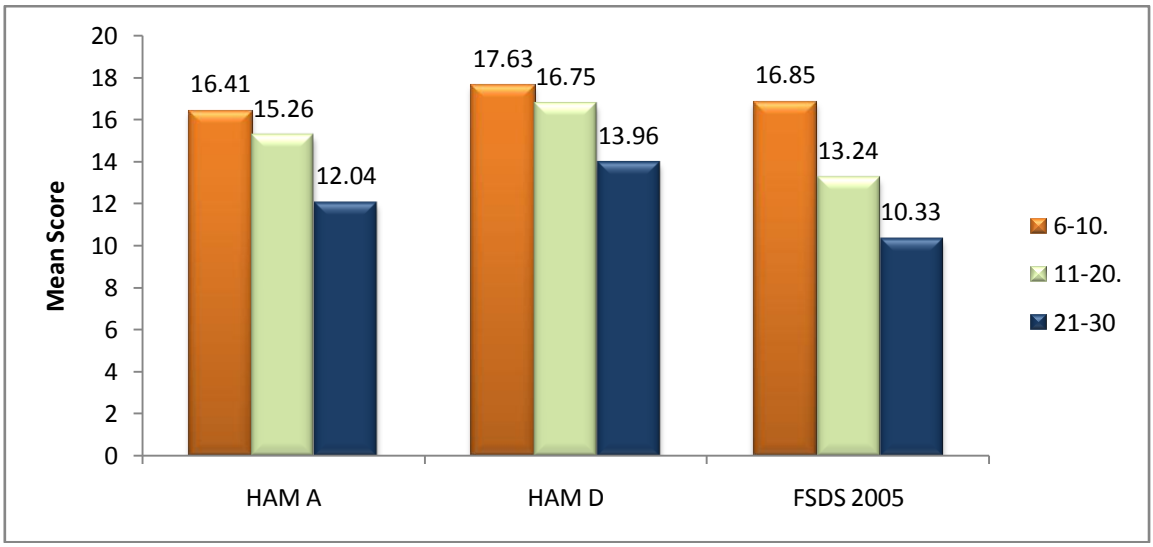



**Table 4: Relation of kuppuswami score with HAM A, HAM D, FSDS 2005 score (Control)**

| | Kuppuswami Score | N | Mean | SD | F-value | p value | Sig. |
|---|---|---|---|---|---|---|---|
| HAM A | 6-10 | 33 | 3.88 | 2.78 | 0.465 | 0.629 | NS |
| | 11-20 | 119 | 4.04 | 2.34 | | | |
| | 21-30 | 40 | 3.63 | 2.18 | | | |
| HAM D | 6-10 | 33 | 4.76 | 3.01 | 0.380 | 0.684 | NS |
| | 11-20 | 119 | 5.10 | 2.36 | | | |
| | 21-30 | 40 | 5.25 | 2.27 | | | |
| FSDS 2005 | 6-10 | 33 | 4.79 | 2.85 | 0.936 | 0.394 | NS |
| | 11-20 | 119 | 4.06 | 2.67 | | | |
| | 21-30 | 40 | 4.35 | 2.97 | | | |

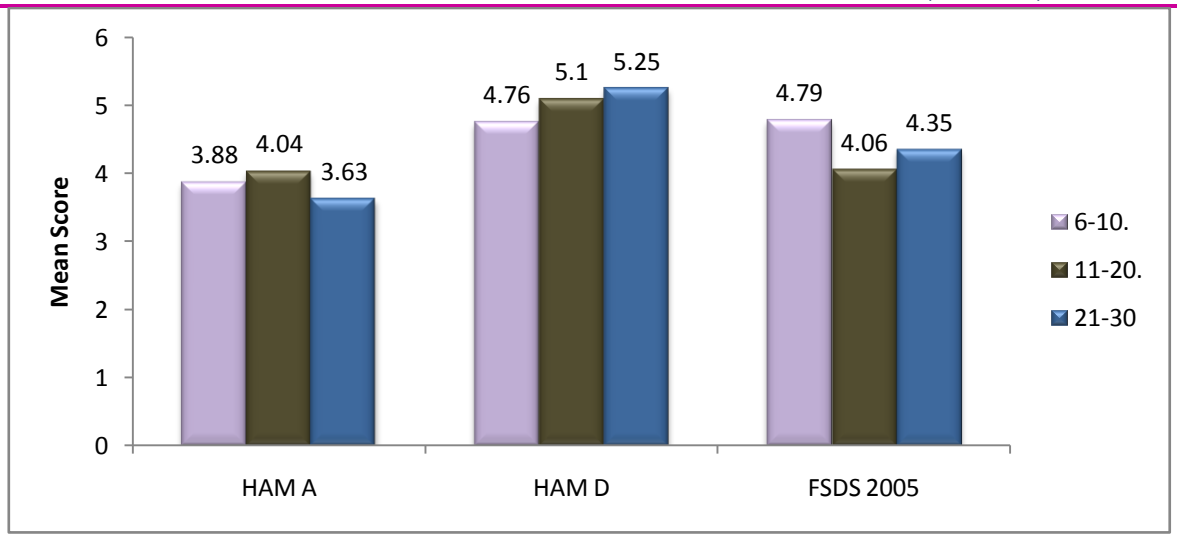
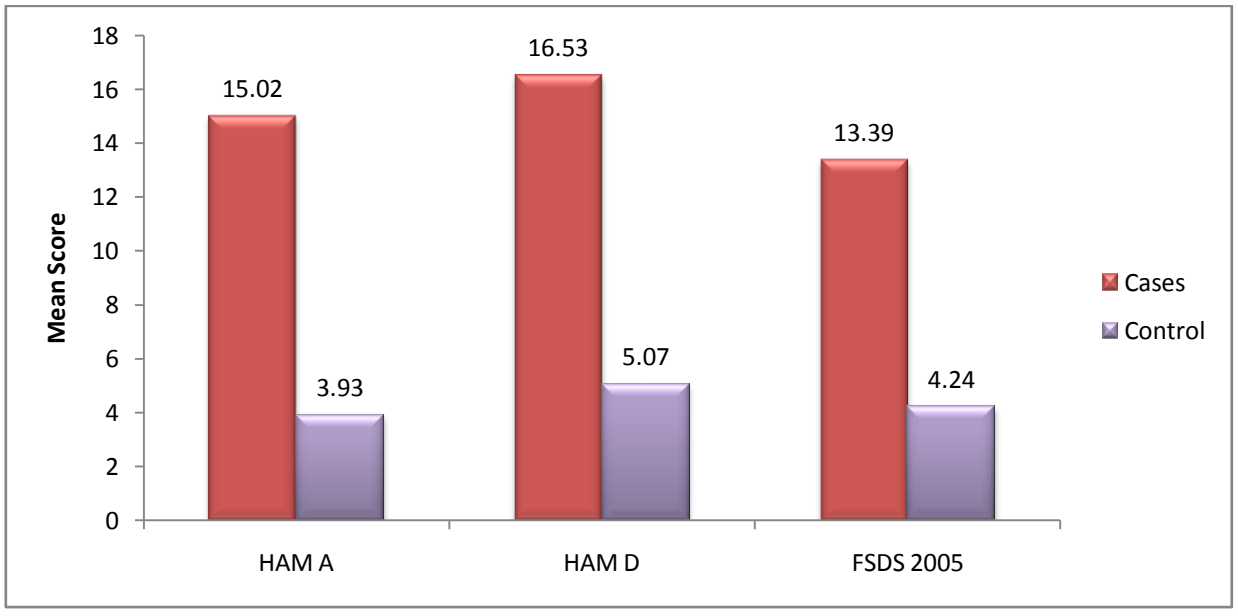



Table 3&4 presents the socioeconomic status (kuppuswami score) of the participants. The results revealed frequency and percentage of cases and controls according to kuppuswami scores, that are grouped as 1-10 (27 cases and 33 controls), group 11-20 (141 cases and 119 controls), group 21-30 (24 cases and 40 controls). Results of our study had significant 'p' value on all the 3 scales ( HAM-A, HAM-D,FSDS scales ) but the mean score value decreases with increased index on kuppusmami scale , inferring that the levels of anxiety , depression and sexual dysfunction are more in lower classes.

**Table 5: Relationship of cases and controls with HAM-A, HAM –D, FSDS Scores.**

| | Groups | N | Mean | Std. Deviation | Std. Error Mean | t-test | p value |
|---|---|---|---|---|---|---|---|
| HAM A | Cases | 192 | 15.02 | 3.46 | 0.25 | 36.601 | 0.001 |
| | Control | 192 | 3.93 | 2.38 | 0.17 | | |
| HAM D | Cases | 192 | 16.53 | 2.81 | 0.20 | 42.471 | 0.001 |
| | Control | 192 | 5.07 | 2.46 | 0.18 | | |
| FSDS 2005 | Cases | 192 | 13.39 | 4.71 | 0.34 | 23.183 | 0.001 |
| | Control | 192 | 4.24 | 2.76 | 0.20 | | |



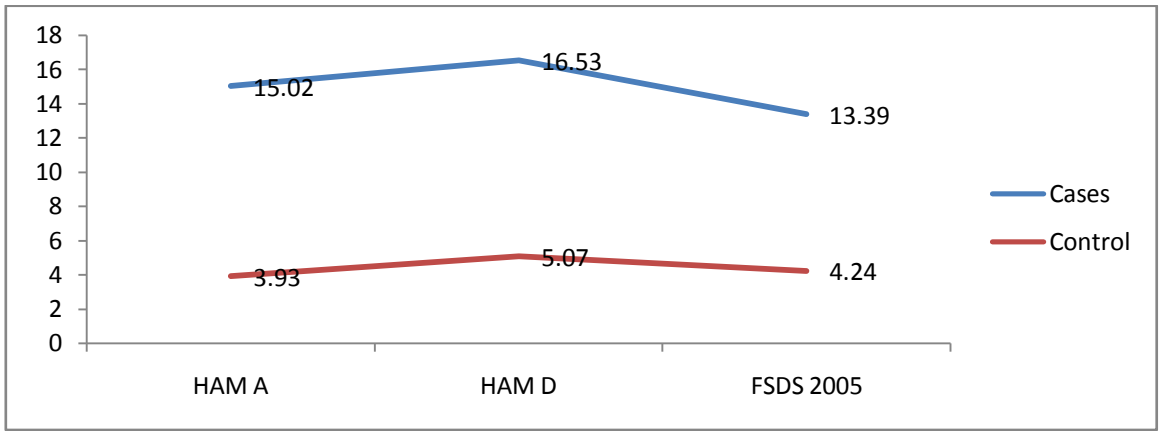



**Table 5** tells us that among all the participants (192 cases and 192 controls) the mean score on HAM A score in cases was 15.02 +/- 3.46 and in controls were 3.93 +/- 2.38. The mean of HAM D in cases group was 16.53 +/- 2.81 while in controls group was 5.07 +/-2.46. The mean of FSDS 2005 score in cases was 13.39 +/- 4.71 while in controls it was 4.24 +/- 2.76 the difference in the two groups is statistically significant on all three parameters (HAM-A, HAM-D, FSDS 2005).

**Table 6: Relation of duration of hysterectomy with HAM A, HAM D, FSDS 2005 score (Cases)**

| | Months | N | Mean | SD | F-value | p value | Sig. |
|---|---|---|---|---|---|---|---|
| HAM A | 1-4 | 7 | 16.00 | 5.20 | 0.435 | 0.648 | NS |
| | 5-8 | 48 | 15.21 | 3.55 | | | |
| | 9-12 | 137 | 14.90 | 3.34 | | | |
| HAM D | 1-4 | 7 | 18.29 | 5.79 | 2.970 | 0.054 | NS |
| | 5-8 | 48 | 17.06 | 2.82 | | | |
| | 9-12 | 137 | 16.25 | 2.56 | | | |
| FSDS 2005 | 1-4 | 7 | 12.71 | 2.98 | 0.614 | 0.542 | NS |
| | 5-8 | 48 | 14.02 | 5.09 | | | |
| | 9-12 | 137 | 13.20 | 4.65 | | | |

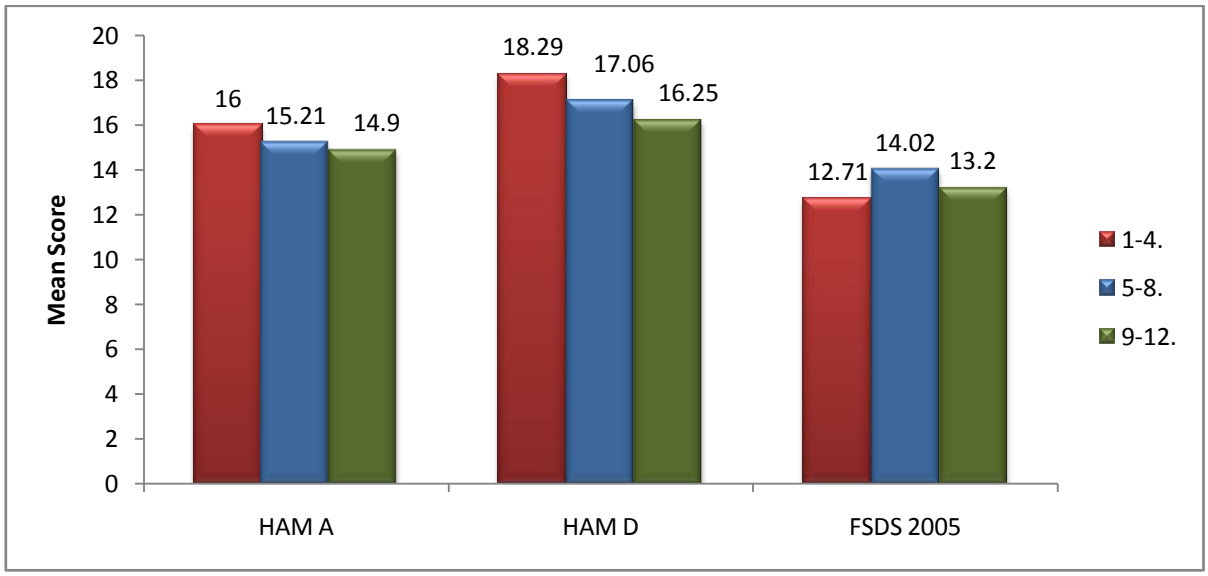
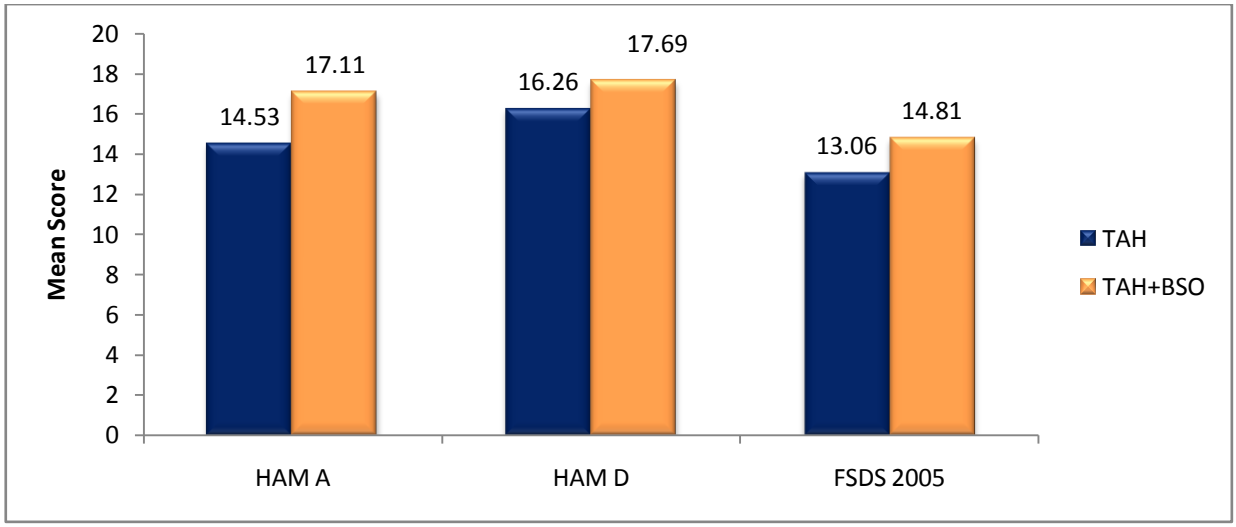


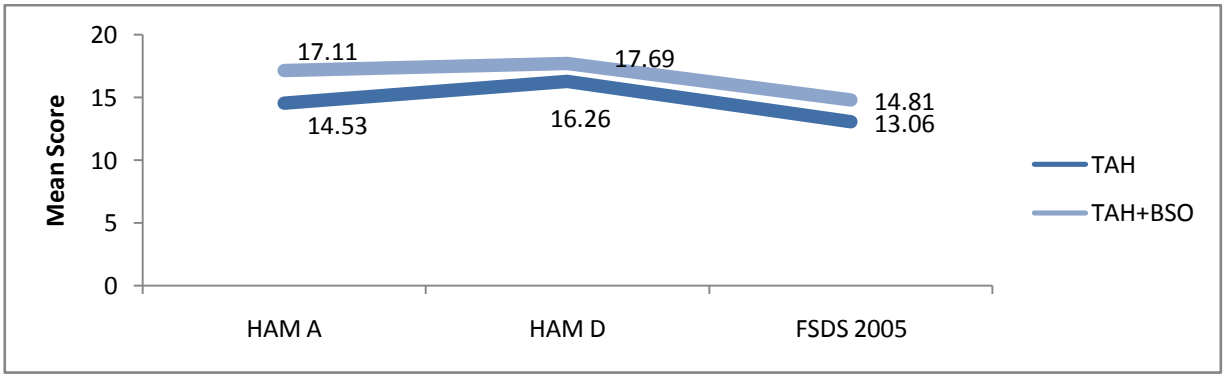

**Table 6** represents that the mean of HAM A score 1-4 months after hysterectomy was 16 +/- 5.2, while the means 5-8 months after hysterectomy was 15.21 +/- 3.55 and the mean after 9-12 month after hysterectomy was 14.90 +/- 3.34. The mean of HAM D score 1-4 months after hysterectomy was 18.29 +/- 5.79, the mean after 5-8 months was 17.06+/-2.82 and after 9-12

months of hysterectomy was 16.25+/-2.56. The mean of FSDS during 1-4 months was 12.71+/-2.98 increases to 14.02+/-5.09 during 5-8 months after hysterectomy and it again decreases to 13.20+/-4.65 during 9-12 months after hysterectomy.

**Table 7: Relation of hysterectomy with opphorectomy with HAM A, HAM D, FSDS 2005 score (Cases)**

| | Opphorectomy | N | Mean | SD | t-test | p value | Sig. |
|---|---|---|---|---|---|---|---|
| HAM A | TAH | 156 | 14.53 | 3.26 | 4.211 | 0.001 | HS |
| | TAH+BSO | 36 | 17.11 | 3.54 | | | |
| HAM D | TAH | 156 | 16.26 | 2.58 | 2.797 | 0.006 | S |
| | TAH+BSO | 36 | 17.69 | 3.47 | | | |
| FSDS 2005 | TAH | 156 | 13.06 | 4.57 | 2.025 | 0.044 | S |
| | TAH+BSO | 36 | 14.81 | 5.11 | | | |




Mean HAM A score for hysterectomy was 14.53+/-3.26 as compared to 17.11 +/- 3.54 for TAH+BSO and this difference was highly significant with 'p' value of 0.001.

Mean HAM D score for hysterectomy was 16.26 +/- 2.58 as compare to 17.69 +/- 3.47 for TAH+BSO and the difference was significant.

'P' value was significant for FSDS 2005 score also with mean score 13.06 +/- 4.57 for TAH and 14.82 +/- 5.11 for TAH+BSO.

## Results and Discussion: Table 1&2: Relationship with urban and rural areas

The mean HAM A & FSDS was greater in urban areas than in rural areas but the difference was not significant while in HAM D score the 'p' value was significant showing significant depressive illness in women in urban areas after hysterectomy than in rural areas. The reason behind our results maybe that in urban areas more women are in working sector and are facing dual pressure of work load and household stress. This adds up to the psychological problems caused by hormonal

imbalance after these gynecological procedures (hysterectomy with bilateral oophorectomy). These women reported increased irritability, sadness of mood and lethargy after hysterectomy This reason is well supported by study done byLeithneret.al.(2009)[3]which revealed more psychiatric problems in working women than in non-working women cause maybe due to more engagement in society. The study matched 150 cases with 150 controls and there was 45.3% psychiatric morbidity in cases as compared t0 27.3% in controls. Results of our study are also similar to HASHIM (2012) [4], a study conducted in which psychiatric problems is found more common in urban areas (cases-71.88%, controls-68.33%) than in rural areas (cases- 2.55, controls-6.11%).

**TABLE 3&4: Relationship with Kuppuswami scale**

Results of our study had significant 'p' value on all these scales (HAM A, HAM D & FSDS). The kuppuswami scale assesses the population on basis of education, occupation and family income/month, it shows that as the class on kuppusmami scale increases, the levels of anxiety, depression and sexual dysfunction decrease significantly, reason for such finding may be financial stability due to stable jobs and more awareness due to higher levels of education. In women with low socioeconomic status, the women losing their ability to produce children after hysterectomy are more prone to psychiatric problems due to false beliefs and taboos in the society regarding the reproductive capacity of women like more the number of children more is the income so the child is an asset rather than a liability. Similar results is also found in study done by HELMY( 2008)[5],who found out higher levels of psychiatric morbidity in women after hysterectomy with lower levels of education.

**TABLE 5: Relationship of cases and controls with HAM A, HAM D & FSDS scores**

Cases had significantly higher HAM A score than in controls, the probable cause of higher anxiety level can be incomplete knowledge about the procedure and its complications, decreased self-confidence and concerns related decreased femininity. Our study results were supported by the study done by Farooki (2005)[6], in that there were total of 100 participants and post-operative psychiatric problems observed were, 62% women were anxious and 29% women were borderline anxious along with 36% women depressed and 46% women borderline depressed.

The cases in our study significantly higher HAM D scores than controls. The depressed feelings can be due to sudden and major change in the life of the women and the concern of loosing ability to bear children as women unable to produce children are considered as incomplete and give lower status in the society. As in concordance with the study of Sehlo&Ramadani (2010)[7], stating the uterus as special symbolic meaning for women and its loss leading to feeling of reduced femininity. The study showed major depressive disorders (31.6% in cases, 2.7% in controls) significantly higher in hysterectomy group.

The 'p' value was significant on FSDS score a lot and the reason for this difference in two groups (cases & control) on FSDS 2005 score can be feeling of decreased femininity and concerns regarding sexual satisfaction and lack of spousal support. Keskin&Gumus (2011)[8],supported these finding where study done on 94 patients being treated for breast & gynecological cancer. Hysterectomy patients had more sexual difficulties in terms of vaginismus and avoidance of sexual intercourse.

**TABLE 6: Relation of duration of hysterectomy with HAM A, HAM D, FSDS 2005 score (cases)**

The levels of anxiety and depression according to HAM A and HAM D scores was more during 1st few months and gradually decreased with time. But the levels of sexual problems according to FSDS score was more during 5-8 months after hysterectomy and is less during initial months( 1-4months) and later months (9-12 months) after hysterectomy. In General, with relation to duration of hysterectomy the 'p' value was not significant on all the three scales (HAM A, HAM D & FSDS) A study conducted by Wade et.al.(2000)[9],anxiety and depression levels were measured 1-7 days prior to surgery and 8 weeks after surgery, in which 42% cases exhibiting mild anxiety decreased to 14% and pre & post-operatively and moderate to severe anxiety increased from 58% to 86%, similarly mild depressive symptoms decreased from 52% to 20% and moderate to severe depression increased from 22% to 46% and 34% to 46%, 8 weeks after surgery.

**Table 7: Relation of hysterectomy along with the bilateral ooperectomy with HAM-A, HAM-D, FSDS 2005 score.**

Mean HAM A, HAM D and FSDS 2005 scores have significant p values showing that the levels of anxiety depression and sexual problems are more in women undergoing hysterectomy with bilateral ophorectomy then undergoing only hysterectomy. The reason can be the hormonal imbalance after oophorectomy due to the loss ovarial functions. As similar results were seen by the study conducted by Sozeri Varma 2011[10], on 40 sexually active women, who underwent hysterectomy and bilateral oopherectomy for benign gynaecological diseases, in which it was found that although depression and anxiety decreased after operation but hysterectomy along with oophorectomy had negative effects on sexual satisfaction. As another study showing similar results conducted by Yen & colleagues 2008[11], reported that psychological symptomatology is reduced after a hysterectomy but sexual functioning declines. In this study most, women were operated on with laparoscopic assisted vaginal hysterectomy and it was noted that operational technique & remaining ovary had a positive effect on postoperative healing. But the study conducted by Aziz & colleagues 2005 [12], reported that with or without oophorectomy, hysterectomy positively improves general health &well being, reduces depression & improves sexual satisfaction and interest. This was found to be in contradiction with the results found in our study. Another study done by Goestch MF 2005[13], investigated that sexual function of 105 women before hysterectomy as well as 3,8 & 18 months afterwards. Their ovaries were extracted &oestrogen replacement given, had difficulty in becoming aroused and sexual satisfaction generally increased. Thus hysterectomy could be viewed positively as it eliminates symptoms that disturb lifestyle & makes women feel healthier. Whereas the results obtained in our study reveals that hysterectomy with bilateral oophorectomy affects the psychological as well as the sexual health of the cases.

## CONCLUSION

As women are taken as the weaker section of the society, as women are at greater risk of experiencing mental illness because of social factors like gender discrimination, overwork, poverty, malnutrition. Biological factors like menstruation pregnancy and menopause. Apart from these contraceptive procedures and Gynecological procedures that effect reproductive and sexual functions contribute to psycho social problems.

Women who have undergone hysterectomy at young age face multitude of physical, psychological and emotional turmoil. The major contributing factors are lack of proper information, support and counseling. This can be overcome by the support system before and after surgery which can help the women to deal with psychological, sexual and emotional impact of hysterectomy; this can be accompanied by exploring the patient's fears along with active listening which should be the primary tool in dealing with emotional problems of hysterectomy patients.

Moreover in bilateral oophorectomy which can be done with hysterectomy in young patients under special conditions may cause hormonal imbalance affecting female psychology so it may need hormonal therapy in young age. Creation of awareness and better counseling before surgery results in better post-operative psychological outcomes of hysterectomy.

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