Assessment of psychosocial domain of quality of life for women who had undergone hysterectomy

Atiya K. Mohammed, MSc Fatin Abdul-Amir , PhD, Assistant Professor *

الخلاصة

أجريت دراسة وصفية (عرضية المقطع) لتقييم نوعية الحياة النفسية والاجتماعية لـ ١٠٠ امرأة لديها عملية استنصال الرحم لاسباب غير خبيثة خلال (٢-٢) شهر بعد العملية .أجريت الدراسة في العيادة الاستشارية لكل من مستشفى العلوية للولادة ومستشفى بغداد التعليمي، وللفترة من ٥ كانون الثاني ٢٠٠٣ ولغاية ١٠ تموز ٢٠٠٣. بينت نتائج الدراسة أن : نوعية الحياة في المجالين النفسي والاجتماعي عالي عند النساء اللواتي أجريت لهن عملية رفع الرحم.ظهور اختلاف ذات دلالة معنوية عالية بين كثير من الخصائص الديموغرافية والمجال النفسي والاجتماعي لنوعية الحياة.العمر هو أكثر المتغيرات يتبأ بنوعية حياة أفضل في المجال النفسي والاجتماعي. أوصت الدراسة بإعداد برامج تثقيفية للنساء وأزواجهم وتوفير كتب وكراسات وإجراء دراسات اخرى على عدد أكبر من النساء.

Abstract

A descriptive (cross sectional) study was conducted to assess psychosocial domain of quality of life for (100) women who had hysterectomy for non malignant indications during 6-12 months post operative. The study carried out in both consultation clinics of Al-Elwiya Maternity Hospital and Baghdad Teaching Hospital from January 5th 2003 to July 10th 2003). The results of the study show that hysterectomy achieved a highly successful outcome in terms of psychological and social adjustments for hysterectomies women, a highly significant differences between quality of life (QoL) and some of demographic characteristics. Age was the best significant predictor of psychosocial outcome. The study recommended an education programs should be developed for women and their partners, and provision of concerned pamphlets books. Further research that confirm the present data with a large number of women is required.

Introduction

Hysterectomy is the surgical removal of the uterus, and may also be accompanied by the removal of the fallopian tubes and ovaries. Approximately 650.000 hysterectomy are performed in the US every year, making it the most common major surgical procedure for women unrelated to pregnancy^(1, 2). It has been projected that there will be 824.000 hysterectomy in the U.S in the year 2005⁽³⁾. Factors that affect adjustment of woman undergoing a hysterectomy include age, cultural background, educational level, husband's attitude, family situation, preoperation and whether causes involved ⁽⁴⁾. Stanfill stated that the emotional stability of a patient can greatly influence the course of an illness. For this reason, pertinent information that explores the psychosocial needs of hysterectomy women is valuable in develop a holistic approach to patient care⁽⁵⁾. Although hysterectomy is comparatively safe procedure but it is associated with clinically significant surgical morbidity and it is important to recognize that hysterectomy is not an effective treatment for all women and some women may not good candidates for the surgery. It had been reported that many women die annually as a result of having this operation unnecessarily ⁽⁶⁾.

^{*} Department of Maternity Nursing / College of Nursing / University of Nursing.

Methodology

A descriptive study (cross-sectional design) was carried out to assess psychosocial aspect of OoL for 100 women had undergone hysterectomy for benign diseases from both clinical consultation of Baghdad teaching hospital and Al-Elwiya Maternity Hospital. The data were collected through the utilization of interviewing technique and the use of constructed questionnaire during the period from January 5th 2003 to July 10th 2003. Duration of the interview ranged approximately 30-40 minutes. The instrument consists of: (1) Data sheet: it concerns the respondent general characteristics. (2) Psychological domain scale: it includes 3 sections which are measured on (3 points Likert scale): (a) Section I: Self esteem – 9 items. (b) Section II: Body image – 8 items. (c) Section III: Psychological status – 14 items. (3) Social domain scale: it includes 3 sections too which are measured in the same way as mentioned above: (a) Section I: Marital relationship – 11 items. (b) Section II: Family relationship – 8 items. (c) Section III: Social relationship – 7 items. To obtain the validity of the questionnaire (25) experts. were asked for their opinions and suggestions. Alpha-Cronbach correlation coefficient was employed to determine the questionnaire reliability. The results indicated that the correlation coefficient for the psychological scale was (0.89) and for the social scale was (0.92). Data of the present study were analyzed through descriptive statistical data analysis which includes: frequency, means, percentage mean score (M.S.), standard deviation (S.D.), and inferential statistical data analysis which includes: t-test, F-test (analysis of variance-Anova), and step wise multiple regression. The significant level of all statistical procedures was determined at P < 0.05.

Results

Table (1): Demographic characteristics of the study group

| Age (years) | No. | % |
|--|-----|--------|
| 18 - 25 | 2 | 2 |
| 26 - 33 | 3 | 3 |
| 34 - 41 | 12 | 12 |
| 42 - 49 | 49 | 49 |
| 50 - 57 | 22 | 22 |
| ≥ 58 | 12 | 12 |
| Total | 100 | 100 |
| Mean + SD($47.40 \pm 1, \Lambda \Upsilon$) | | |
| Educational level | No. | % |
| Not read and write | 49 | 49 |
| Read and write | 12 | 12 |
| Primary school graduate | 15 | 15 |
| Secondary school graduate | 7 | 7 |
| Institute and college graduate | 11 | 11 |
| postgraduate Total | 6 | 6 |
| | 100 | 100 |
| Occupational status | No. | % |
| Currently employed | 27 | 27 |
| Not employed | 73 | 73 |
| Total | 100 | 100 |
| Marital status | No. | % 5 |
| Single | 5 | 5 |
| Married | 80 | 80 |
| Widowed | 14 | 14 |
| Separated and divorced | 1 | 1 |
| Total | 100 | 100 |

Table (1) shows the following characteristics of the study group according to demographic data. The study group has age ranged from 18 - 81 years, nearly half of

them (49%) were in age group (42-49) years.and (49%) of them too were unable to read and write. The occupational status for most of them (73%) were house wives Concerning the marital status the majority of them (80%) were married compared to (5%) were single.

Table (2): Reproductive status (gravidity, parity, number of living children and dead children and abortion) for the study group

| Gravidity | | | | | | |
|--------------------------------|--------|-------|--|--|--|--|
| G. urumy | No. | % | | | | |
| None* | 7 | 7.0 | | | | |
| 1 – 3 | 9 | 9.0 | | | | |
| 3 – 5 | 13 | 13.0 | | | | |
| ≥5 | 71 | 71.0 | | | | |
| Total | 100 | 100.0 | | | | |
| Mean + SD (3.42 ± 0.87) | | | | | | |
| *single(5) + nulli gravida (2) | | | | | | |
| Parity | | | | | | |
| None* | 7 | 7 | | | | |
| 1 – 3 | 13 | 13 | | | | |
| 3 - 5 | 24 | 24 | | | | |
| <u>≥</u> 5 | 56 | 56 | | | | |
| Total | 100 | 100 | | | | |
| Mean + SD $(3.17 + 0.91)$ | | | | | | |
| *single(5) + nulli parous (2) | | | | | | |
| No. of living ch | ildren | | | | | |
| None | 7 | 7 | | | | |
| 1 - 3 | 15 | 15 | | | | |
| 3 - 5 | 28 | 28 | | | | |
| >5 | 50 | 50 | | | | |
| Total | 100 | 100 | | | | |
| Mean + SD (3.09 ± 0.90) | | | | | | |
| No. of dead chi | ldren | | | | | |
| None | 64 | 64 | | | | |
| 1 | 19 | 19 | | | | |
| 2 | 8 | 8 | | | | |
| <u>≥</u> 3 | 9 | 9 | | | | |
| Total | 100 | 100 | | | | |
| Mean + SD (1.81 ± 1.04) | | | | | | |
| Abortion | | | | | | |
| None | 54 | 54 | | | | |
| 1 | 22 | 22 | | | | |
| 2 | 13 | 13 | | | | |
| <u>≥</u> 3 | 11 | 11 | | | | |
| Total | 100 | 100 | | | | |
| Mean + SD (1.62 ± 0.97) | | | | | | |

Table (2) shows reproductive status of the study group. The gravidity of the study group ranged from 0-13 gravida, with a mean of 3.42 ± 0.87 , the highest percent (71%) have 5 or more gravida.

The number of parity ranged from (0 - 12) a with a mean of 3.17 ± 0.91 , most of them (66 %) have five or more deliveries. The number of living children for the study group ranged from 0-11 with a mean of 3.09 ± 0.90 , half of them (50%) have 5 or more children, while the dead children for the women ranged from 0-7 with a mean of 1.81 ± 1.04 and (19%) of women had at least one dead child, number of abortion ranged from (0-4) with a mean of 1.62 ± 0.97 and (22%) of the women had one abortion.

 Table (3): Menstrual status (before the operation) for the study group

| Menstrual status | No. | % |
|------------------|-----|------|
| Regular | 36 | 36.0 |
| Irregular | 48 | 48.0 |
| Menopause* | 16 | 16.0 |
| Total | 100 | 100 |

^{*} Menopause: is the permanent cessation of menstruation after 12 consecutive months of amenorrhia from the final menstrual period (Amir, 2002).

Table (3) shows menstrual status (before the operation) for the study group (36%) of them had regular menstruation, (48%) had irregular menstruation, while (16%) were menopausal women.

Table (4): Post-operative duration for hysterectomized women

| No. | % |
|-----|----------------------|
| 35 | 35.0 |
| 31 | 31.0 |
| 13 | 13.0 |
| 21 | 21.0 |
| 100 | 100 |
| | 35 31 13 21 |

Table (4) shows that most of the study group (35%) were in the sixth month of postoperative period.

Table (5): Distribution of the study group according to the causes and type of hysterectomy

| Causes of hysterectomy | No. | % |
|-------------------------------------|-----|------|
| Benign uterine tumor (fibroid) | 35 | 35 |
| Heavy post-partum heamorrhage | 5 | 5 |
| Pelvic inflammatory disease can not | 8 | 8 |
| controlled by medication (PID) | | |
| Endometriosis | 2 | 2 |
| Uterine prolapse | 21 | 21 |
| Menstrual problems (disturbance) | 18 | 18 |
| Cesarean section | 4 | 4 |
| Uterine rupture | 4 | 4 |
| pelvic pain | 3 | 3 |
| Total | 100 | 100 |
| Types of hysterectomy | | |
| Abdominal approach | 93 | 93.0 |
| Vaginal approach | 7 | 7.0 |
| Total | 100 | 100 |

Table (5) shows that, uterine fibroid was the main indication for hysterectomy (35%), and the majority of hysterectomy (93%) performed by abdominal approach.

Table (6): Analysis of variance (ANOVA) between age of the study group and the psychological and social domains of the quality of life

| psychological and social domains of the quality of life | | | | | | | | |
|---|----------------|-------|-------|------------------|------|---------|--|--|
| Age(years | Age(years) | | SD | df | F | p.value | | |
| | 18 - 25 | 41.50 | 0.70 | | | | | |
| | 26 – 33 | 47.00 | 7.54 | | | | | |
| Developies | 34 - 41 | 59.75 | 13.83 | 94 | 6.95 | ٠,٠٠١ | | |
| Psychological domain | 42 - 49 | 66.04 | 15.48 | 94 | | HS | | |
| domani | 50 - 57 | 77.40 | 12.56 | | | | | |
| | <u>≥</u> 58 | 80.83 | 18.08 | | | | | |
| | 18 - 25 | 28.00 | 7.07 | | | | | |
| Social | 26 – 33 | 36.33 | 15.04 | | 3.27 | | | |
| domain | 34 - 41 | 47.58 | 10.98 | 94 | | 0.009 | | |
| | 42 - 49 | 52.42 | 14.6 | 7 7 1 | 3.27 | HS | | |
| | 50 - 57 | 59.18 | 13.60 | | | | | |
| | <u>></u> 58 | 55.25 | 16.95 | | | | | |

The table shows that, there are highly significant differences between women's age and the psychological and social domains of the quality of life.

Table (7): Analysis of variance (ANOVA) between educational level of the study group and the psychological and social domains of the quality of life

| Educa | tional level | Mean | SD | df | F | p.value |
|----------------------|--------------------------------|-------|-------|----|------|-------------|
| | Not read and write | 69.73 | 16.36 | | | |
| | Read and write | 74.75 | 18.42 | | | |
| | Primary school graduate | 60.53 | 15.17 | | | |
| Psychological domain | Secondary school graduate | 59.42 | 11.78 | 94 | 3.69 | 0.004 HS |
| | Institute and college graduate | 62.45 | 16.28 | | | |
| | postgraduate | 87.50 | 8.11 | | | |
| | Not read and write | 52.53 | 14.44 | | | |
| | Read and write | 61.25 | 11.16 | | | |
| Social | Primary school graduate | 51.06 | 13.48 | | | |
| domain | Secondary school graduate | 45.14 | 13.09 | 94 | 3.74 | 0.004 HS |
| | Institute and college graduate | 42.90 | 18.89 | | | |
| | postgraduate | 67.83 | 7.46 | | | |

The table shows that, there are highly significant differences between women's educational level and their psychological and social domains of the quality of life.

Table (8): Relationship between occupational status of the study group and the psychological and social domains of the quality of life

| Occupational status | | Mean | SD | df | t | p.value |
|----------------------|--------------------|-------|-------|----|------|---------|
| Psychological domain | Currently employed | 70.66 | 15.31 | 98 | 0.60 | 0.43 |
| | Not employed | 67.69 | 17.48 | 90 | 0.60 | NS |
| Social domain | Currently employed | 54.81 | 16.19 | 98 | 0.72 | 0.39 |
| | Not employed | 51.91 | 14.70 | 90 | | NS |

The table reveals that, there are no significant differences found between women's occupational status and both psychological and social domains of the quality of life.

Table (9): Analysis of variance (ANOVA) between marital status of study group and the psychological and social domains of the quality of life

| Marital | status. | Mean | SD | df F p.valu | | |
|----------------------|---------------------|-------|-------|-------------|------|------------|
| | Single | 62.80 | 24.24 | | | |
| | Married | 68.32 | 16.93 | 96 | 1.01 | 0.39 NS |
| Psychological domain | Widowed | 73.00 | 13.57 | 96 | | |
| | Separated &divorced | 48.00 | 0.00 | | | |
| | Single | 44.80 | 23.45 | | | |
| Social Domain | Married | 55.20 | 13.67 | 0.6 | 4.01 | 0.003 |
| | Widowed | 43.50 | 14.10 | 96 | 4.91 | HS |
| | Separated &divorced | 21.00 | 0.00 | | | |

In this table a highly significant differences appeared between women's marital status and their social domain of the quality of life.

Table (10): Analysis of variance (ANOVA) between reproductive status of the study group and the psychological and social domains of the quality of life.

| Gravidity | | Mean | SD | df | F | p.value |
|-----------------------|------------|-------|---------|------|-------|-------------|
| | non | 52.80 | 17.00 | | | 0.001 |
| Psychological domains | 1 - 3 | 52.00 | 13.39 | 96 | 7.54 | |
| | 3 - 5 | 68.00 | 14.4291 | 90 | 7.34 | HS |
| | <u>≥</u> 5 | 72.79 | 15.94 | | | |
| | non | 25.40 | 10.50 | | | |
| Social | 1 - 3 | 40.63 | 13.98 | 96 | 12.10 | 0.001 |
| Domain | 3 - 5 | 55.90 | 14.12 | 90 | 12.10 | HS |
| | ≥ 5 | 55.90 | 12.68 | 1 | | |
| Parity | | | | • | | |
| | non | 44.85 | 3.1320 | | | 0.001 HS |
| Psychological | 1 - 3 | 58.23 | 15.86 | 96 | 9.39 | |
| domain | 3 - 5 | 72.75 | 16.19 | 90 | | |
| | <u>≥</u> 5 | 71.81 | 14.93 | | | |
| | non | 21.42 | 5.53 | | 20.81 | 0.001 |
| Social | 1 - 3 | 45.00 | 8.75 | 96 | | |
| domain | 3 - 5 | 56.77 | 14.35 | 90 | | HS |
| | <u>≥</u> 5 | 56.61 | 11.15 | | | |
| Number of livin | g children | | | | | |
| | non | 44.85 | 3.13 | | | |
| Psychological | 1 - 3 | 59.73 | 15.82 | 96 | 8.98 | 0.001 |
| domain | 3 - 5 | 72.15 | 15.66 | 90 | 0.90 | HS |
| | <u>≥</u> 5 | 72.47 | 15.54 | | | |
| | non | 21.42 | 5.5334 | | | |
| Social | 1 - 3 | 46.80 | 10.05 | 96 | 19.68 | 0.001 |
| domain | 3 - 5 | 56.27 | 13.82 | 7 90 | 19.00 | HS |
| | <u>≥</u> 5 | 57.02 | 11.52 | | | |

The table reveals that, there are highly significant differences between women's reproductive status (gravidity, parity, number of living children) and the psychological and social domains of quality of life.

Table (11). Analysis of variance (ANOVA) between menstrual status of study group and the psychosocial and social domains of the quality of life

| Menstrual status | | Mean | SD | df | F | p.value |
|----------------------|-----------|-------|-------|----|------|---------|
| D 1 1 ' 1 | Regular | 63.52 | 16.81 | | | 0.01 |
| Psychological domain | Irregular | 68.91 | 16.56 | 96 | 4.66 | 0.01 |
| | Menopause | 78.43 | 14.12 | | | Sig. |
| G . 1 | Regular | 48.75 | 15.78 | | | 0.14 |
| Social Domain | Irregular | 54.95 | 14.13 | 96 | 1.96 | 0.14 |
| | Menopause | 54.81 | 15.41 | | | NS |

The table reveals that, there are significant differences between women's menstrual status and psychological domain of the quality of life.

Table (12): Analysis of variance (ANOVA) between post-operative duration of the study group and the psychological and social domains of the quality of life

| Post-opera | tive duration | Mean | SD | df | F | p.value |
|---------------|---------------|-------|-------|-----|------|---------|
| | 6 months | 61.71 | 17.45 | | | |
| Psychological | 7-8 months | 69.61 | 15.69 | 0.6 | 4.82 | 0.004 |
| domain | 9-10 months | 68.15 | 13.30 | 96 | | HS |
| | 11-12 months | 78.38 | 15.32 | | | |
| | 6 months | 44.17 | 15.87 | | | |
| Social | 7-8 months | 57 | 12.13 | 0.5 | 8.57 | 0.001 |
| domain | 9-10 months | 51.23 | 11.73 | 96 | | HS |
| | 11-12 months | 61.47 | 12.54 | | | |

The table reveals that, there are highly significant differences between postoperative duration and the psychological and social domains of the quality of life.

Table (13): Analysis of variance (ANOVA) between hysterectomy causes of the study group and the psychosocial and social domains of the quality of life

| | Hysterectomy causes | Mean | SD | df | F | p.value |
|----------------------|--|---------|-------|----|-------|-------------|
| | Benign uterine tumor (fibroid) | 63.48 | 16.29 | | 3.94 | 0.001 HS |
| Psy | Heavy post-partum heamorrhage | 49.80 | 9.47 | 91 | | |
| Psychological domain | Pelvic inflammatory disease (PID) (do not respond to medication) | 73.87 | 13.51 | | | |
| gic | Endometriosis | 60.50 | 17.67 | | | |
| äl | Uterine prolapse | 73.61 | 14.83 | | | |
| lop | Menstrual problems (disturbance) | 72.88 | 15.58 | | | |
| na | Cesarean section | 83.50 | 14.79 | | | |
| ₽, | Uterine rupture | 51.50 | 16.27 | | | |
| | Pelvic pain | 89.66 | 4.04 | | | |
| | Benign uterine tumor (fibroid) | 50.05 | 16.89 | | 1.783 | 0.09 NS |
| | Heavy post-partum heamorrhage | 42.80 | 8.49 | 91 | | |
| Social domain | Pelvic inflammatory disease (PID) (do not respond to medication) | 56.87 | 14.99 | | | |
| ıl d | Endometriosis | 39.50 | 10.89 | | | |
| lon | Uterine prolapse | 54.85 | 14.35 | | | |
| aii | Menstrual problems (disturbance) | 59.55 | 10.89 | | | |
| n | Cesarean section | 60.00 | 9.20 | | | |
| | Uterine rupture | 40.2500 | 14.17 | | | |
| | pelvic pain | 48.3333 | 11.01 | | | |

The table reveals that, there are highly significant differences between hysterectomy causes and the psychological domain of the quality of life.

Table (14): Relation-ship between type of operation of the study group with psychological and social domains of quality of life

| | | Mean | SD | df | t | p.value |
|---------------|-----------|-------|-------|-----|-------|---------|
| Psychological | Abdominal | 67.62 | 16.69 | 0.0 | 3.66 | 0.58 |
| domain | Vaginal | 80.14 | 16.36 | 98 | | NS |
| Social | Abdominal | 52.76 | 14.72 | 0.0 | 0.023 | 0.87 |
| domain | Vaginal | 51.85 | 20.81 | 98 | | NS |

This table reveals that non-significant differences are found between type of operation and women's psychological and social domains of quality of life.

Table (15): Step-wise multiple regression for the prediction of the psychological and social domains of quality of life

| Predictor | В | R-squire | Adjusted R-squire | p.value |
|-----------|-------|----------|-------------------|----------|
| Age | 6.262 | 0.369 | 0.136 | < 0.0001 |

This table shows that women's age was identified to be the best predictor of the psychological and social domains of quality of life for hysterectomized women.

Discussion

Discussion of the relationships between the psychological – social Domains of QoL and the demographic characteristics of the hysterectomized women.

It had been found out of such characteristics that (49%) of women their ages ranged between (42-49) years. (Table 1). Many clinical studies have agreement with the present study results, which they reported that most common age at hysterectomy was (40-45) years ^(8,9,10,11,12). The study findings identified the age at operation has an important bearing on women's psychological and social status (Table 6). In regard to the educational level of the study group the present findings indicated that nearly half (49%) of women were unable to read and write. Furthermore (Table 7) shows highly significant differences between the educational level of the study group and their psychological and social status. Most of the study group (73%) were not employed. This finding was consistent with which revealed that women who had never worked were more likely to undergo a hysterectomy⁽¹³⁾. The present finding indicated that occupation was not significant associated with psychological and social status of the women Table (8). The majority (80%) were married (Table 1). Furthermore marital status of the study group had highly significant impact upon women's socials status (Table 9). The study finding indicates that women who had five or more gravdia constituted (71%) of the study group, and shows that reproductive status for the women have a high significant impact upon women's psychological and social outcome (Table 10). The present finding indicates that most women (48%) had irregular menstrual cycle at the time of surgery, and (16%) of them were menopause (Table 3). In addition menstrual status for the study group significantly affects women's psychological status (Table 11). (35%) were at 6 months of post-operative period (Table 4) In addition highly significant differences found between post-operative duration and their psychological and social status (table 12)⁽¹⁴⁾. Results indicated that there was a significant improvement at four-six months following operation, and that the longer follow up unnecessary. (35%) have benign uterine tumor (Fibroid) (Table 5). Hysterectomy causes have a highly significant impact on women's psychological status as shown in (Table 13)

The majority of hysterectomy approach were abdominal (93%), and only (7%) were vaginal (Table 5). Furthermore the results of the present study indicate that type of operation don't influence on both psychological and social status of hysterectomized women (Table 14). Women's age at operation was identified to be the best predictor of psychological and social aspects of quality of life (table 15). It means more women's age at operation, will have best (high) quality of life. Many studies supported that hysterectomy correct serious problems that interfere with normal function, save woman's life, and improve the quality of her life (16).

Recommendations

- 1. Women faced with the hysterectomy decision need a lot of related information's. Availability of books, pamphlet could meet this need.
- 2. An educational program should be developed and implemented for woman and her partner in order to increase her knowledge and correct old attitude and support positive attitude.
- 3. Establishing a special center for hysterectomy women to share and open the doors of communication, and discuss openly benefits and risks of operation.
- 4. Further research that confirm the present study data with a larger number of women.

References

- (1) John, A. & Tompson, J.: **Telinde's operative gynecology**, 8th ed., Lipincott Raven, 1996, p. 305.
- (2) Johans, D.; Carrera, B. & Jones, J.: The medical and economic impact of laparoscopically assisted vaginal hyst. in a large metropolitan, not for profit hospital, **Am J. Obstet Gynecol**, vol. 172, 1995.
- (3) Berek, J.; Adashi, E. & Hillard, P.: **Novak's Gynecology**, 12th ed., Baltimore, Maryland, 1996.
- (4) Krueger, J.; Hashel, J. & Goggins, D.: Relationship between nurse counseling and sexual adjustment after hysterectomy, Nursing Research, Vol. 28(3), 1974, pp. 145-148.
- (5) Stanfill, P.: The psychosocial Implications of Hysterectomy, Journal Obstetrics and Gynecology Nursing, September October 1982.
- (6) Roberts, L. & Levitt, E.: Hysterectomy is Effective for Most women say University of Maryland School of Medicine Researchers . **JAMA**, vol. 8, 2000.
- (7) Amir, F. Factors related to the determination of age at natural climacteric and complaints among middle age Iraqi women in Baghdad City, Baghdad, unpublished thesis, Nursing College, Baghdad University, 2002, p. 24.
- (8) Saraiya, M.; Lee, N. & Bickman, D.: Self Report Papnicolau Smears & Hysterectomies Among Women in the United States, **Obstet Gyencol**, vol. 98 (2), 2001.
- (9) Marshall, S.; Hardy, R. & Kuh, D.: Socioeconomic variation in hysterectomy up to age 52 national, population based, prospective cohort study, **BMJ**, vol. 320, 2000.
- (10) Wilson, AL.: Surgical Alternatives to hysterectomy for Abnormal uterine Bleeding, **Health Technology Advisory Committee**, 2000.
- (11) Lepine, L.; Hillis, SD. & Marchbank, P.: Hysterectomy surveillance united states. 1980-1993, MMWR, Vol. 46 (4), 1997.
- (12) Bachmann, G.: Hysterectomy A critical Review, **The Journal of Reproductive Medicine**, Vol. 35 (9), 1990.

- (13) Mark, N. & Shinberg, D.: Socioeconomic Differences in Hysterectomy: Evidence from the Wisconsin Longitudinal study, **Center for Demography and Ecology University of Wisconsin-Madison**, No. 96-04, 1996, pp. 1, 9.
- (14) Ryan, M.: Dennerstein, L. & Pepperell, R.: Psychological Aspects of Hysterectomy A Prospective study, **British Journal of Psychiatry**, vol. 154, 1989.
- (15) Kuko, M.; Tomas, E. and Laati Kashen, D.: Finnish national register of laparoscopic hysterectomies: A review and complications of 1165 operations, **Journal of Obstetrics and Gynecology**, vol. (176), 1997.
- (16) Kjerulff, K. & Langeberg, P.: Effectiveness of hysterectomy, **Obstetrics and Gynecology**, Vol. 95(3), 2000, pp. 319, 320.