

## Quality of Life for Women after Hysterectomy

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### Abstract

**The aim of this study was to:** assess quality of life for women after hysterectomy. **Design:** Descriptive study. **Setting:** The study was conducted at the outpatient clinics of Ain Shams University Maternity Hospital and Bab El Sha'rya University Maternity hospital. **Sampling:** Purposive sample of 160 women with hysterectomy. **Data collection:** Two tools were used; **1<sup>st</sup> tool:** An interviewing questionnaire included six parts: **Part I:** Socio-demographic characteristics, **Part II:** a) Reproductive history b) Health history, **Part III:** Factors related to hysterectomy, **Part IV:** a) Assessing health complaints after hysterectomy b) Assessing health problems after hysterectomy c) Assessing health needs after hysterectomy, **Part V:** Assessing women's knowledge about hysterectomy, **Part VI:** Assessing women's quality of life after hysterectomy. **2<sup>nd</sup> tool:** Follow up medical record **Results:** Family history, unhealthy life style, and obesity were found to be associated factors with hysterectomy. Most of women had unsatisfactory knowledge regarding hysterectomy. Constipation, osteoporosis, dyspareunia, and anxiety were found to be the most health problems after hysterectomy. More than three quarters of women were not compliant with follow up after hysterectomy. Less than half of women reported poor quality of life after hysterectomy. **Conclusion:** A highly statistically significant difference was found between the studied women's knowledge and their quality of life after hysterectomy. Statistical significant differences were found between the studied women's socio-demographic characteristics and their knowledge, their compliance with follow up, and their quality of life after hysterectomy. **Recommendations:** This study recommended increasing the awareness among women after hysterectomy through effective educational programs, carrying out effective discharge plans for women with hysterectomy including follow up visits schedule, the required examinations and healthy lifestyle guidelines.

**Key words:** Hysterectomy, Quality of life.

### Introduction

Hysterectomy is the most common non obstetrical surgical procedure among women, with approximately 600,000 surgeries performed annually in the United States. Approximately one third of women will have a hysterectomy during their lifetime. Among premenopausal women, most hysterectomies are performed for benign conditions, with the most frequent indications being fibroids, dysfunctional

bleeding, endometriosis, and pelvic organ prolapse (Shrivastva & Chaudhry, 2015).

Women who undergo hysterectomy face a multitude of physical, psychological, emotional, social, and sexual problems both before and after the surgery. The major factors contributing to these problems are lack of proper information, lack of support and counseling, and fears and apprehensions born out of wrong

information. So it is important to appoint qualified community health nurses in order to interact with the hysterectomy women and their families. The aim of such interaction should be ensuring that the woman copes better with the hysterectomy and post-hysterectomy scenario by lessening the problems faced by the hysterectomy women (**Kendall & Fairman, 2014**).

### **Aim of the study**

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- Assessing health needs and problems of women after hysterectomy.
- Assessing women's knowledge regarding hysterectomy.
- Assessing predisposing factors leading to hysterectomy.
- Assessing physical, psychological, social, and sexual aspects of quality of life for women after hysterectomy.

### **Research questions**

**Q1:** What are the health needs and problems of women after hysterectomy?

**Q2:** Is there a relation between women's knowledge regarding hysterectomy and their quality of life after hysterectomy?

**Q3:** What are the predisposing factors leading to hysterectomy?

**Q4:** What are the effects of hysterectomy on women's quality of life?

### **Subjects and methods**

#### **Research design**

A descriptive study was used to meet the study aims.

#### **Setting**

The current study was conducted at the outpatient clinics of Ain Shams University Maternity Hospital which lies at El- Abbasia

square in Cairo and which mainly serves the population of east of Cairo and Bab El Sha'rya University Maternity Hospital which lies at Bab El Sha'rya square in Cairo and which serves the population of west of Cairo. The both mentioned hospitals are considered the two main maternity hospitals in east and west of Cairo.

### **Sample and subjects**

A purposive sample of 160 women with hysterectomy was used. The total number of women with hysterectomy in Ain Shams University Maternity Hospital during the years of 2014 and 2015 was 576 women and the total number of women with hysterectomy in Bab El Sha'rya University Maternity Hospital during the years of 2014 and 2015 was 192 women. 20% of them were taken with the following inclusive criteria:

- Married women with hysterectomy, living with their partners, after at least one month of the surgery because the women after hysterectomy start follow up after one month of the surgery date.

### **Tools of data collection**

#### **First Tool: Structured Interviewing Questionnaire:**

It was developed by the investigator based on literature review and content was validated by the pilot study and was presented in an Arabic language to assess:

**Part I:** (A) Socio-demographic characteristics of the women such as, age, residence, number of family members, number of house rooms, educational level, occupation, and monthly income.

Crowding index was calculated using persons-per-room PPR measure. This measure depends on dividing persons number by rooms number and

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overcrowding was determined when PPR exceed 1.50 (Kevin, et al. 2017)

**Part II:(A)** Health history of the women including the reproductive history such as age of first menarche, regularity of menarches, number of normal and caesarean section deliveries, previous abortions, and age of the last pregnancy and any other health problems.

**(B)** Medical history of the related cause of hysterectomy, type of hysterectomy, complications, other present or past health problems and woman's source of information about hysterectomy.

**Part III:** Assessment of the factors which were related to hysterectomy such as the family history of hysterectomy, the unhealthy life style (passive smoking, lack of physical exercising, and use of saturated fats in diet), heavy physical activities, obesity, suffering from stress or anxiety, use of family planning methods, and use of hormonal replacement therapy before hysterectomy.

Obesity was determined by calculating the studied women's body mass index by dividing weight in kilograms by height in meters squared. A healthy weight was a BMI of 18.5-24.9; overweight is 25-29.9; and obese is 30 or higher (Frank, 2015).

**Part IV: (A) Assessment of women's health complaints after hysterectomy:**

-Vasomotor complaints which included hot flushes, night sweats, sleeping difficulties, weight gain, skin dryness, and hair fall.

-Psychological complaints which included sadness, sudden crying gags, lack of concentration, nervousness and irritability, and lack of self-confidence.

-Sexual complaints which included lack of sexual desire, lack of sexual arousal, lack

of love and intimacy during coitus, vaginal dryness, and absence of orgasm.

-Social complaints which included difficulty of achieving daily social activities, inability to meet the family responsibilities, partner attitude change, relatives' attitude change, lack of interest by others, and financial difficulties that may obstruct follow up after hysterectomy.

### • Scoring System

- A woman who chose 30% of complaints or less, representing 1 or 2 complaints, was not considered having health complaints when calculating the total score.

**(B)Assessment of women's health problems after hysterectomy:**

- Physical problems which included colon disorders, constipation, episodes of constipation and diarrhea, osteoporosis, hypertension, and atherosclerosis.

- The psychological problems which included anxiety, feeling of loneliness, and depression.

- The sexual problems such as vaginal pain during coitus, vaginitis.

### • Scoring System

- It contained 10 problems represented 100 %.

- A woman who chose 20 % of problems or less, representing 2 problems, was not considered having health problems when calculating the total score.

- The total score was divided into (occur) which represented less than 20% of the total health problems and (Do not occur) which represented 30 % or less of the total health problems.

**(C)Assessment of women's health needs after hysterectomy:**

Nutritional needs which included all food groups in diet, daily calcium intake, increased soft drinks intake, compliance with dietary supplements intake, sun exposure for activation of vitamin (D), and daily fluids intake of 2-3 liters.

Physical activity which included compliance with physical exercising, minimum 3 times of exercising/week, performing Kegel exercises, and healthy body mechanics including lifting, sleeping, walking, sitting, and bending mechanics.

Psychosocial needs which included practicing of a spiritual sport, type of the needed psychosocial support after hysterectomy such as partner support, sons support, and relatives support, seeking of psychological counseling, adaptation to others, adaptation to daily social work, information obtaining facility, educational sessions after hysterectomy.

**• Scoring System**

A woman who chose 30 % of needs or less, representing 1 or 2 needs, was considered having inadequate health needs when calculating the total score.

The adequate needs were considered when 30% of the total needs exceed.

Question number 75 was added to the opposite meaning.

**Part V:** Assessment of the studied women's knowledge related to hysterectomy: the meaning of hysterectomy, types, causes, risk factors, complications, and follow-up.

**• Scoring System**

It contains 22 questions; each question has 4 or more responses.

The correct answer took score 2 and the incorrect answer took score zero.

The incomplete answer took score 1.

The response (do not know) was considered as an incorrect answer during collecting the total answers scores and took score zero.

The answers of the open ended questions were evaluated as correct, incorrect or incomplete with the same scores of the multiple choice questions.

The scoring system was followed to the outcome of women's responses to questions. Total correct responses of questions were 22 points equal to 100% and according to women's responses, the knowledge satisfaction level was categorized as satisfactory level for 50% or more of the total correct answers and unsatisfactory level for less than 50% of the total correct answers.

**Second Tool: Quality of Life Assessment**

It contained assessment of the studied women's quality of life after hysterectomy using an assessment tool which was adopted from the World Health Organization (**WHO, 2010**) and was modified according to the study purposes. It measured the physical, psychological, social, and sexual domains of the women's life after hysterectomy.

**• Scoring System**

The quality of life assessment contained 23 items for all of the domains; the physical domain contains 7 items, the psychological domain contains 7 items, the social domain contains 5 items, and the sexual domain contains 4 items.

The responses were categorized into good, average, or poor; the good response took score 2, the average response took

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score 1, and the poor response took score zero.

The scoring system was followed to the total of the women's responses. Total responses were 23 points equal to 100% and according to woman's responses, the quality of life assessment was categorized as good quality of life for more than 70%, average quality of life for 50% - 70%, and poor quality of life for less than 50% of the total responses.

### Third Tool: Follow Up Medical Record

It was conducted for obtaining data about the physical assessment of woman's wound condition (if found), investigations, medications, complications, weight and height measurements and any other health information. Assessment of the studied women's compliance with follow up visits and examinations after hysterectomy which included mammography, Pap smear for subtotal hysterectomies, Dual Energy X-rays AbsorptiometryDEXA, blood Pressure measurement, blood cholesterol measurement, and compliance with hormonal replacement therapy after hysterectomy.

### Content Validity

Content validity was done by 5 experts from community health nursing staff-Faculty of Nursing – Ain Shams University.

### Field of work

- The data collection process spanned about 5 months during the period from mid - October 2017 till the end of February 2018. This was conducted within 3 days weekly, a day for Bab El Sha'rya University Maternity Hospital on Saturdays and 2 days for Ain Shams University Maternity Hospital on Wednesdays and Thursdays, from 11 a.m. to 1 p.m.

- The investigator met the women at the outpatient clinics of Ain Shams University Maternity Hospital; at the follow up room.

- The investigator met the women at the outpatient clinics of Bab El Sha'rya University Maternity Hospital; at the reception hall.

- The investigator introduced herself firstly for each participating woman and a brief explanation of the nature and aim of the study was done before each interview.

- The investigator role in completing the questionnaire was to facilitate the understanding of any confusing or difficult question for the women.

- The time needed for completing one questionnaire was about 20 minutes.

- The time needed of a woman who could not read and write for completing the questionnaire was about 35 minutes.

- The average number was 2 to 3 questionnaires per day.

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### Ethical considerations

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Official permission was obtained by submission of formal letters issued from the administrator of the faculty of nursing. Privacy, confidentiality, anonymity of the women, reassurance, and safety to reduce the women's anxiety were applied.

### Statistical design

The collected data was organized, scored, tabulated and analyzed using the statistical package for social sciences, version 20.0 (SPSS Inc., Chicago, Illinois, USA) as:

• Quantitative data were expressed as mean± standard deviation (SD).

• Qualitative data were expressed as frequency and percentage.

The following statistical tests were used:

- Number, percentage distribution, and mean.
- Standard deviation (S.D) (for variable age)
- Chi-square ( $X^2$ ) test of significance was used in order to compare proportions between two qualitative parameters.

## **Results**

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**Fig (1):** Regarding the total health problems after hysterectomy (**fig.1**), Constipation represented 47.5%, episodes of constipation and diarrhea represented 1.8%, osteoporosis represented 41.2%, hypertension represented 30.0%, and atherosclerosis represented 8.1% among the studied women. Anxiety represented 56.9% and depression represented 1.2% of the psychological problems among the studied women after hysterectomy. Vaginal pain during coitus represented 62.5% and vaginitis represented 3.7% as sexual problems among the studied women after hysterectomy.

**(fig.2):** Regarding the health needs after hysterectomy, (**fig.2**) 45.0% of the studied women did not have adequate daily calcium intake, 66.9% of them did not expose adequately to sun for activation of vitamin (D), 91.2% of them had an increased intake of Soft drinks, and 55.0% of them did not have Daily fluids intake of 2-3 liters.

Regarding the physical activity needs, 93.2% of the studied women did not have a compliance with physical exercising after hysterectomy, 63.6% of the exercising the studied women did not achieve minimum 3 Times of exercising /week. 100.0% of the studied women did not perform Kegel exercises. Regarding healthy body mechanics after hysterectomy, 29.1% of the studied women did not follow the healthy body mechanics of lifting, 95.8% of them did not follow the healthy body

mechanics of sleeping, 83.3% of them did not follow the healthy body mechanics of walking, 87.5% of them did not follow the healthy body mechanics of sitting, and 75.0% of them did not follow the healthy body mechanics of bending.

Regarding the psychosocial needs, 84.3% of the studied women did not practice a spiritual sport, 17.5% of them needed partner support, 5.2% of them needed sons support, 13.2% of them needed relatives support. Regarding psychological counseling after hysterectomy, 3.1% of the studied women seek psychological counseling. 95.0% of the studied women had adaptation to others after hysterectomy and 88.2% of them had adaptation to daily work. 65.0% of the studied women found a difficulty in information obtaining facility. Regarding educational sessions after hysterectomy, 92.5% of the studied women did not attend it.

**(fig.3):** This study showed that 22.5% of the studied women had a satisfactory level of knowledge and 77.5% of them had an unsatisfactory level of the total knowledge which is related to hysterectomy.

Regarding the predisposing factors to hysterectomy, 27.5% of the studied women had a Family history of hysterectomy and 70.5% of these relations were 1st. Degree. 74.4% of women had been exposed to passive smoking. 88.1% of the studied women had a Lack of physical exercising. Regarding type of fats intake in diet, 58.8% of women had used saturated type. 88.1% of women had done heavy physical activities. 79.3% had increased body mass index. 76.2% suffered from stress or anxiety. 94.2% of women had used Intra Uterine Devices as a family planning method. 2.8% of women had used hormonal replacement therapy before hysterectomy.

Regarding the physical domain of quality of life after hysterectomy, 50.0% of them could not overcome the sense of pain and discomfort after hysterectomy.

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Regarding the psychological domain of quality of life after hysterectomy 84.4% of the studied women had the inability to make own decision, 84.3% of them had the sense of being not valuable and 80.6% of them reported Having low self-confidence.

Regarding the sexual domain of quality of life after hysterectomy 31.3% of the women did not meet their sexual needs after hysterectomy. 32.4% of them reported they were not comfortable. 33.1% of women were not satisfied with their sexual life after hysterectomy. 44.4% reported better sexual life after hysterectomy and 30.6% of them reported worst sexual life after hysterectomy.

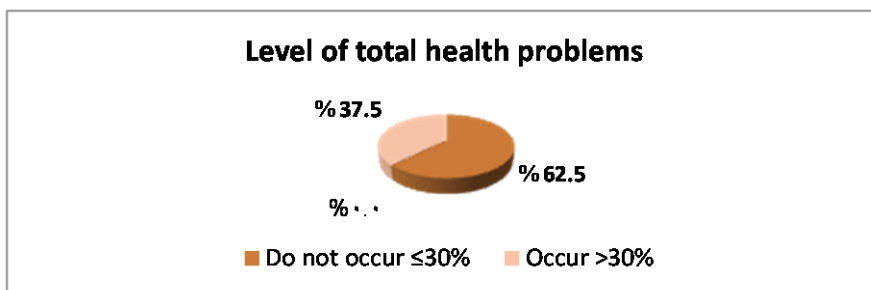
Regarding the social domain of quality of life after hysterectomy 79.4% of the studied women did not have the desire to be

engaged with others after hysterectomy, 77.5% of them were not happy about family relationship, and 70.0% did not get support from others.

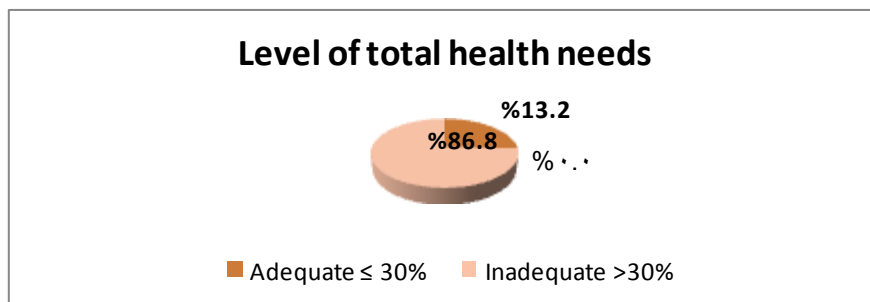
(fig.4), Regarding the total quality of life of the studied women after hysterectomy 45.0% of the studied women reported total poor quality of life after hysterectomy, 45.0% reported average quality of life, and 10.0% reported good quality of life after hysterectomy.

(fig.5) The current study revealed a positive relation and a high statistical significant difference with p-value of 0.388 between the total score of knowledge regarding hysterectomy and the total score of quality of life after hysterectomy.

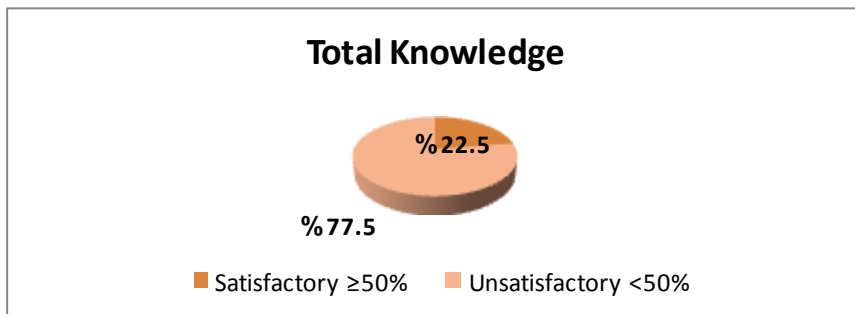
**Fig (1):** Percentage distribution of the studied women according to their level of total health problems after hysterectomy.



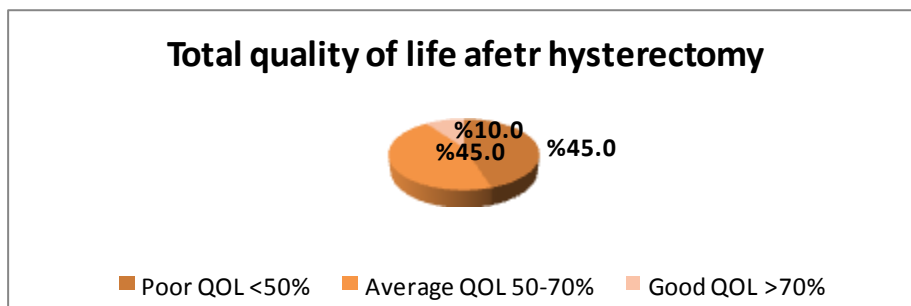
**Fig (2):** Percentage distribution of the studied women according to their level of total health needs after hysterectomy.



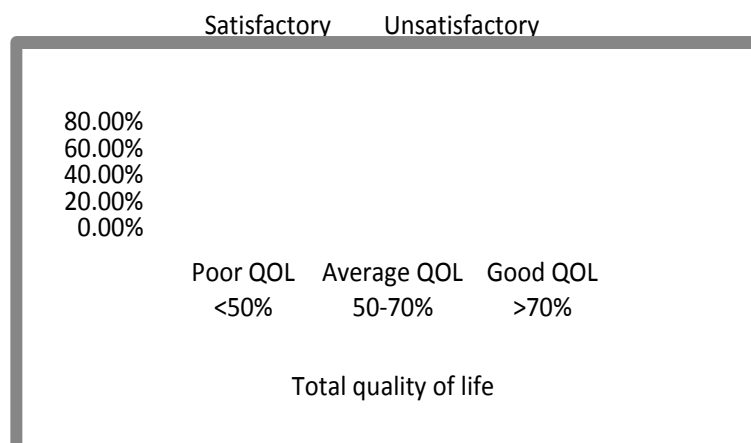
**Fig (3):** Percentage distribution of the studied women's total knowledge about hysterectomy.



**Fig (4):** Percentage distribution of the studied women according to their total quality of life after hysterectomy.



**Fig (5):** Relation between the studied women's total quality of life after hysterectomy and their total knowledge about hysterectomy.



**Discussion:**

According to the present research question number (1):

In relation to physical problems after hysterectomy this study described that less than half of the studied women reported constipation as a major physical problem after hysterectomy. This finding agreed with **Park, et al, (2013)** in the study of



"Biofeedback therapy for female patients with constipation caused by radical hysterectomy or vaginal delivery" in South Korea and who mentioned that constipation in many reviews occurs secondary to colon repositioning after hysterectomy.

As regard to the psychological problems after hysterectomy more than half of the studied women reported anxiety feelings and more than one third of them reported feelings of loneliness after hysterectomy. **Bahri, et al (2016)** in the study of "Depression Following Hysterectomy and the Influencing Factors" in Iran, stated that hysterectomy did not show a relationship with postoperative depression and the only factor related to depression following a hysterectomy was satisfaction with the surgery. **Okunlola, et al, (2011)** in Nigeria, suggest that anxiety related disorders increase after hysterectomy with the highest proportion in those with clinical diagnosis of uterine fibroids among Nigerian women.

As for the sexual problems less than two thirds of the studied women reported vaginal pain during the sexual intercourse after hysterectomy. In accordance with **Hoffmann &Pinas, (2014)** in U.S.A, described that vaginal pain was a considerable problem of their study women after hysterectomy. In contrast, **Kayani, et al, (2016)** in the study of "Quality of life after total laparoscopic hysterectomy" in Kuwait, found that women presenting with dyspareunia prior to hysterectomy were more likely to report higher improvement in postoperative sexuality.

Regarding the nutritional needs of the studied women after hysterectomy this study showed that more than two thirds of the studied women did not have adequate nutritional needs after hysterectomy. Lack of dietary supplements intake and lack of daily sun exposure for activation of vitamin D were the most observed needs among the studied women. **Botkin, (2016)** in the study of "The Association between Osteoporosis and Early Menopause Following

Hysterectomy" in U.S.A, reported that lack of calcium and vitamin D intake play a substantial role as risk factors of osteoporosis in the hysterectomized postmenopausal women.

In particular to the physical activity needs of women after hysterectomy the present study demonstrated that the most of the women under this study did not do any type of physical exercises after hysterectomy and in the investigator's opinion this basically related to lack of knowledge regarding the importance of regular physical activity and exercises among most of the Egyptian women. **Ingrid, et al, (2013)** in their study "Summarizing the literature regarding types of physical activities restricted after hysterectomy" in Tanzania, presented the negative effects of sedentary behavior after hysterectomy concluded that excessive sedentary behavior after hysterectomy, even in women that engage in regular exercise, is detrimental.

In relation to psychosocial needs this study showed that less than two thirds of the studied women did not meet their psychosocial needs after hysterectomy. The majority of the women under this study did not practice any spiritual sport and also the majority of them had adequate psychological support from their partners, sons, and relatives.

**According to the present research question number (2):**

A statistical association was found between the studied women's knowledge regarding hysterectomy and their quality of life after hysterectomy. Statistical associations also were found between the studied women's socio-demographic characteristics and their knowledge regarding hysterectomy, their compliance with follow up after hysterectomy, their health needs after hysterectomy and their quality of life after hysterectomy.

**According to the present research question number (3):**

As for the factors associated with hysterectomy, this study demonstrated that more than one quarter of the studied women had a family history of hysterectomy. Regarding the unhealthy lifestyle, less than three quarters of the studied women have been exposed to passive smoking, the majority of them did not do any type of regular physical exercises, and more than half of them had preferred saturated fats in diet intake moreover the unsaturated type and more than three quarters of them suffered from stress or anxiety before hysterectomy.

This study revealed that the majority of the studied women were obese; their body mass index was more than 30. **Kavanagh, (2015)** in the study of "Obesity and endometrial cancer" in U.S.A, reported that obesity is the most significant risk factor for endometrial cancer. Women who are obese; BMI of 30 or higher, have a 76% higher endometrial cancer risk and reported that this is consistent with the results of several other studies that have shown a higher risk of endometrial cancer in obese women.

**According to the present research question number (4):**

Regarding the physical domain of quality of life of the studied women after hysterectomy the current study illustrated that less than half of the studied women had poor physical domain, more than two fifth of them had an average physical domain, and more than one tenth of them reported good physical domain due to alleviation of the pain and bleeding symptoms after hysterectomy.

Regarding the psychological domain of quality of life of the studied women after hysterectomy this study illustrated that less than three quarters of them had poor psychological domain, more than one fifth of them had an average psychological

domain, and less than one tenth of them reported good psychologically domain after hysterectomy.

According to **Gibson, et al, (2012)** in the study of "Mood Symptoms After Natural Menopause and Hysterectomy With and Without Bilateral Oophorectomy Among Women in Midlife" in Pennsylvania, mood symptoms and psychological life continue to improve after hysterectomy for all women and women who undergo a hysterectomy with or without bilateral oophorectomy in midlife do not experience more negative mood symptoms in the years after surgery. Also in relation to **Persson, et al, (2011)** in the south of east Sweden, general psychological wellbeing was equally improved after hysterectomy within 12 months of the operation, and did not seem to be associated with the serum concentration of the circulating sexual hormones.

In relation to the sexual domain of quality of life of the studied women after hysterectomy the current study illustrated that about one third of the studied women had poor sexual domain, about another one third of them had an average sexual domain, and more than one third of them had good sexual domain after hysterectomy.

The study of **Danesh, et al, (2015)** "The Effect of Hysterectomy on Women's Sexual Function: a Narrative Review" in Iran, reported that most of the sexual disorders improve after hysterectomy for uterine benign diseases and most of the women who were sexually active before hysterectomy experienced the same or better sexual functioning hysterectomy while radical hysterectomy for gynecological cancers causes more negative effects on sexual functioning due to the elimination of a large part of pelvic ligaments and pelvic autonomic nerves.

As regard to the social domain of quality of life of the studied women after hysterectomy this study described that more

than two thirds of the studied women had poor social domain, more than one quarter of them had an average social domain, and less than one tenth of them had good social domain after hysterectomy.

The study of **Nilangi, (2015)** "Hysterectomy among Premenopausal Women and its impact on their Life" in India, stated that 23% of the study women expressed that since their strength and ability to work has reduced after hysterectomy, the family is getting affected and partners also disapproved that the wife is not working as much as they expected because women were not allowed to lift heavy weights after hysterectomy and some of women reported conflicts between them and the mothers in law when they could not work, which indicated negatively affected social life of these women.

On the light of the previously discussed results regarding quality of life of the studied women after hysterectomy this study found that less than half of the studied women had poor quality of life after hysterectomy, less than half of them had an average quality of life after hysterectomy, and one tenth of them had good quality of life after hysterectomy.

According to the investigator's opinion, the reported different health complaints of the studied women, their lack of knowledge about hysterectomy, and the low socioeconomic status of most of them affected on all of the domains of quality of life of them after hysterectomy and played the main role in determining these results.

### **Conclusion and Recommendations**

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**On the light of the findings of the present study, it can be concluded that:**

Less than half of the studied women had poor quality of life after hysterectomy, less than half of them had an average quality of life after hysterectomy, and one tenth of them had good quality of life after hysterectomy.

**The findings of the present study suggest the following recommendations:**

- 1- Increasing the women's awareness about the different choices for hysterectomy alternatives as many uterine disorders have more effective solutions nowadays.
- 2- Increasing women and their partners' awareness before conducting hysterectomy regarding the procedure, possible complications and expectations about the post-operative period, possible physical, sexual, and psychological domains.
- 3- Providing an effective discharge plan for women with hysterectomy including follow up visits schedule, the required examinations, and referral numbers for each type of the expected complaints after hysterectomy.
- 4- Carrying out different health education sessions for women with hysterectomy regarding the healthy life style programs including healthy nutrition, keeping healthy body mass index, and physical exercising.
- 5- Further studies should be conducted focusing on studying the psychological and sexual aspects of women after hysterectomy.

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