A Golden Technique in Sexual Health Status and Urinary Incontinence Among Women with Hysterectomy

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Abstract

Hysterectomy is the most common surgical procedure among women, many complications with serious consequences may impact the quality of life. **This study aimed to appraise** the effect   of a golden technique on sexual Health Status and Risk of urinary incontinent among women with hysterectomy. **Study design:** A quasi-experimental design (one group pre & post-test) was used. **Setting:** The study was conducted at the Obstetric and Gynecological department and the outpatient clinics in South valley University Hospital. **Sample:** A purposive sample of 50 women who underwent hysterectomy. Tools of data collection: 3 tools were used. Tool I: A structured interview questionnaire includes three parts; part (1) demographic characteristics; part (2): clinical data, including a history of medical diseases and part (3) assess the level of knowledge about hysterectomy. Tool II: Female Sexual Function Index (FSFI). Tool III: Incontinence impact questionnaire – short form (IIQ-7) **Results:** There was a statistically significant difference in knowledge, sexual health status and impact of urinary incontinence on health -related quality of life (QOL) among studied subjects pre and post golden technique. Moreover, there were highly significant statistical positive correlations between total knowledge, total female sexual index and Total Incontinence impact questionnaire (p=0.00**). **Conclusion:** The study concluded that the application of the golden technique is an appropriate way of improving knowledge, sexual health status and impact of urinary incontinence on health -related quality of life (QOL). **Recommendation:** This study recommended implementing the golden technique as part of routine primary care service provided for adult women.

Key words: Golden Technique, Knowledge, Sexual Health, urinary incontinence, Hysterectomy

Introduction:

Hysterectomy is the definitive procedure for relief of symptoms and prevention of recurrent leiomyoma-related problems. There are serious concerns about sexual function patients and Urinary incontinence in the postoperative period, for hysterectomy. the effects of hysterectomy increase sexual dysfunction because of loss of female genital organs, loss of nerve tissue, decrease in blood supply, decrease in lubrication due to loss of cervix and negative effects of scar tissue in women who underwent hysterectomy **(Kiremitli et al., 2021).**

Complications can occur due to hysterectomy is urinary incontinence is one of the major complications. Urinary incontinence

occurs because of an increase in abdominal pressure due to coughing, sneezing and laughing. Bodily conditions that predispose urinary incontinence more likely include pregnancy, Hysterectomy, weight problems, antique age, urethral stones, obstruction of bladder, persistent bladder infections **(Seemab et al., 2021).**

Moreover, post-operative complications of hysterectomy include hematoma or abscess in the minor pelvis, abdominal hemorrhage, vaginal bleeding, fever, urinary retention, stenosis or obstruction of the urethra, pelvic organ fistula, infection of the urinary tract , infection of the incision site , intestinal occlusion, numbness and tingling near the incision site, organ or tissue prolapsed, excessive hysterectomy scar tissue growth, loss

of normal hormone levels, osteoporosis onset that occurs earlier, menopausal symptoms including hot flashes and severe mood swings which effect on sexual health among **(Ibrahim, & Mohammed, 2020).**

Sexual function is imperative to women and there is a significant desire (and unmet need) for more perioperative therapy and discussion regarding sexual function changes and quality of life (QOL) impacts. Sexual function may be changed due to a mixture of hormonal changes from ovarian removal, anatomic changes from vaginal alteration, and sensation changes due to damage to the neurovascular bundle **(Escott et al., 2021).**

Nurse is an important member of the health care team to counsel the women in the sensitive and highly charged area of human sexuality. Sexuality and sexual health problems are challenging areas for nurses, so should be approached in a way that respects women confidentiality and sensitively explores women needs. Nursing interventions (Education and counseling on sexuality) are used to assist women in resolving their sexual problems **(Emam et al., 2018).**

Nurses play a basic role of providing women with adequate instruction to improve symptoms and therefore quality of life. Improved awareness and recognition of this disorder will have a positive impact on the future health and wellbeing of women with hysterectomy. These women should be instructed to assume a healthy lifestyle, which comprises both a balanced diet and exercise throughout their lifetime. In addition to adequate time for instruction and empathetic communication, it is important to personalize care for women undergoing hysterectomy using an individualized assessment of needs and a tailored treatment plan using shared decision-making **(Alqersh, & Ahmed, 2021).**

Nurses play an important role in improving patients' UI by understanding the experiences of individuals experiencing UI, providing healthcare, and implementing behavioral therapy methods. Managing the incontinent patients is an integral component of nursing practice and can be a challenging and rewarding aspect of nursing care **(Mohammed et al., 2021).**

Significant of the study:

Hysterectomy is second most common surgery for women in the U.S. In Egypt, there are no clear data about the prevalence about hysterectomy. However, there are clinical impressions about a frequent practice for hysterectomy the presumed high rates of hysterectomy **(Saad et al., 2021).**

Many complications companying hysterectomy, such as hemorrhage, Urinary incontinence, sexual dysfunction, Deep Venus thrombosis, wound infection, bowel problems, complications have a negative impact on the women functional status and consequently, quality of life, therefore, the minimizing of these complications represents a great challenge for the nurse **(Ali et al., 2018).**

Urinary incontinence was observed to be associated with hysterectomy and has a significant effect on the quality of life of social, psychological, occupational, sexual, and economic impact, and leading to a substantial decrease in the quality of life **(Mohammed et al., 2021).**

Aim of the study:

To appraise the effect of a golden technique on sexual Health Status and Risk of urinary incontinent among women with hysterectomy.

Research hypothesis:

H (1): golden technique will improve the level of knowledge and sexual health status among women with hysterectomy

H (2): golden technique will reduce the impact of UI on health -related quality of life (QOL) among women with hysterectomy.

Materials and methods

Research Design: Quasi-experimental design (one group pre-test post-test) was used to fulfill the aim of the current study.

Research Setting:

The study was conducted at the Obstetric and Gynecological department and the outpatient clinics in South valley University Hospital. the hospital provided free health and paid health services.

Study Sample:

Purposive sample of 50 adult women with hysterectomy and attending the above-mentioned setting, the researchers selected patients who met the inclusion and exclusion criteria.

Inclusion criteria:

▪ Adult women were at age (20- 59)
▪ Women with hysterectomy and at least one episode of involuntary urine loss/week.
▪ Married and sexually active.
▪ Willing to participate in the study
▪ Had a telephone.

Exclusion criteria:

▪ Women with communication disorders, such as cognitive problems and psychological disorders
▪ Pathological disorders which effect on bladder control (stroke, spinal injury, & neurogenic bladder).

Sample size:

Based on data from review literature, considering a level of significance 5%, and study power of 80%, the sample size can be calculated from the following formula: n = [(Zα/2 + Zβ)2 × {2(SD)2}]/ (mean difference)2 where SD = standard deviation, Zα/2: This depends on significance level, for 5% this is 1.96. Zβ: This depends on power, for 80% this is 0.84 Therefore, n = [(1.96 + 0.84)2 × {2(2.96)2}]/ (1.7)2=48.6

Based on this formula, the sample size required is 50.

Study Tools:

Three tools were used to collect the study data by the researchers as the following:

Tool I: A structured- interview questionnaire: It was developed by the researchers after an extensive literature review and it was written in simple Arabic. This includes the following three parts:

Part (1): It was related to personal data of the studied patients, such as age, level of education, Job and residence.

Part (2): Clinical data: - It was used to collect data related to the health condition of the women includes chronic diseases such as (No, Hypertension, Diabetes Miletus, arthritis, urinary tract infection, osteoporosis, Asthma and other), Previous uterine surgery (No, Curettage, caesarean delivery & Myomectomy), types of hysterectomy procedure (Abdominal, vaginal & laparoscopic), indication of hysterectomy (Fibroid, Endometrial hyperplasia, Dysfunctional uterine bleeding, Uterine prolapse, Endometriosis) and postoperative complication (No, Hemorrhage, Urinary bladder injury, Paralytic ileus, Wound sepsis, Febrile morbidity & ICU admission)

Part (3): It was used to assess women's' knowledge regarding hysterectomy: It included patients' knowledge about the female reproductive system, definition, indication, contraindication, types, approaches of hysterectomy, complications of hysterectomy surgery and selfcare for patients …)

Scoring system:

The for knowledge score using (Correct and complete=2 marks, Correct and incomplete =1 mark, and Incorrect =0 mark) The scores obtained of all questions were summed up and then converted into percentage scores (satisfactory score ≥ 50% (10 marks and more) and unsatisfactory score < 50% (less than 9 Marks)).

Tool (II): The Female Sexual Function Index (FSFI): It is a brief questionnaire to assess sexual functioning (**Isidori et al., 2010**) and is translated into simple Arabic to suit Egyptian culture**.** Arabic FSFI is a validated, reliable, and accepted tool for assessment of female sexual function in the Egyptian population. **It includes 19 item** self-report measures, divided into six domains such as sexual desire (2 items), orgasm (3 items), arousal (4 items), lubrication (4 items), satisfaction (3 items) and sexual pain (3 items). Each item had a score ranging from 0 to 5. The total sexual-functioning score is calculated by summing the domain scores. Lower domain and overall sexual functioning scores indicate a more sexual dysfunction while higher score indicating a greater level of sexual functioning.

Tool III: The modified Arabic version of the Incontinence Impact Questionnaire (IIQ-7). This tool was adapted from **Mohamed et al., (2018)**. It was used to evaluate the impact of UI on the health -related quality of life (QOL). It has been modified by the author to suit the Egyptian culture. It contains 7 questions about the impact of urinary incontinence on daily functioning

and quality of life. Sub scales were created for the IIQ-7 as follows: prayer (one item), physical activity (two items), social/travel (two items) and emotional health (two). Item responses are assigned values of 0 ("Not at all); 1 ("Slightly), 2 (Moderately) to 3 (Greatly). The total score is the sum of questions 1–7. The average score of the answered items was calculated. The average is multiplied by 33 1/3 to convert scores on a scale from 0 to 100.

No	Level	Score
1	No Problem	0
2	Slight Disturbance	1–25
3	Moderate	26–50
4	Substantial	51–75
5	Severe Disturbance.	76–100

Method:
1. An official approval was issued from the Faculty of Nursing, South valley University and progressed to the director of South valley University Hospital and the

Director of outpatient clinics to obtain the permission to attend the clinics to perform the study after explanation of the purpose of the study.

2. Women were informed that their participation was voluntary and they have the right to be withdrawn from the study with a full respect.

3. The findings would be presented as group data with no personal participant's information remained.

4. Tool I and developed by the researchers based on a systematic review of relevant literature then; tools II, III were translated by the researchers into Arabic. The Arabic version of all these tools was tested for content validity by five (5) experts in the related fields (medical surgical, obstetric and Community Health Nursing). The necessary modifications and omissions of some details were done and then set the

The final fieldwork schedules.

5. The reliability of part (3) of tool (I) was 0.810, tool II (FSFI) was 0.893while the reliability of tool III (IIQ-7) was 0.912 was tested on 10 adult women with hysterectomy to measure the internal consistency of these tools by using Cornbrash's alpha test.

6. A pilot study was conducted to assess the applicability of the tools, the feasibility of the study and to estimate the time needed for data collection. It was conducted on five women according to the selection criteria.

Fieldwork:
1. This study was conducted through three sequential phases: interviewing and assessment phase, program conduction phase, planning & implementation phase and evaluation phase.

The study covers a period of three months from the beginning of May 2020 until the end of August 2020.

2. **Interviewing & Assessment Phase:** women with hysterectomy who fulfilled the inclusion criteria were interviewed individually by the researchers in the waiting area of the clinics using tools from I III order to obtain the baseline data, an assessment of knowledge about hysterectomy, sexual functioning. & to evaluate the impact of UI on health -related quality of life (QOL) (per-test). The interview took around 30–45 min, according to the interviewers' level of understanding and comfort. This phase covered a period of three months.

3. The telephone numbers of the studied women were taken to arrange for program's sessions.

4. In this phase, the researchers interviewed each patient and explained the aim of the study, tool components, benefits of the program for collecting baseline data

Concerning their demographic, medical history of adult, s measurement the level of knowledge, to assess sexual functioning and the impact of UI on health -related quality of life (QOL). This phase was conducted in the outpatient clinic of South valley University Hospital. Recruit patients according to inclusion criteria and then discuss the methods of future communication with those patients.

5. level of knowledge, Female Sexual Function Index was used to measure sexual functioning. The Arabic version of Incontinence Impact Questionnaire (IIQ-7) used to evaluate the impact of UI on health -related quality of life (QOL). The time needed for completing the questionnaire ranged from 20 - 30 min for each adult woman patient using tool (part III of tool I, II and III).

Program conduction phase:
1- The proposed program performed on group bases of 4 groups (A, B, C &D), each group included 12 or 13 adult women with hysterectomy.

2- The golden technique (nursing intervention program) was conducted three a week (Sunday& Tuesday for the first two groups A& B) and (Monday &Wednesday for the other two groups C &D) at South valley University Hospital and one session followed up the researcher through telephone at home. Each session was conducted for 30- 45 min. The total number of sessions was 36 sessions.

3- Before the conduct of the program session, the researchers organized the environment was calm and comfortable for each woman in the groups, had adequate lighting in a private waiting room at outpatient clinic in the South valley University Hospital.

4- The researchers distributed the designed booklet on each woman to clarify the desired knowledge and skills. This booklet encompasses the illustrative colored pictures. The planning and implementation phase:

5- The researchers presented the golden technique to adult women by using some illustrating pictures, brochure, films, video, and demonstration and re-demonstration to teach adult women about this knowledge and exercise and how to do it.

Session 1: (Orientation)

This session oriented the women toward improving the female reproductive system anatomy, hysterectomy and the relation between the surgical procedures and the complications of urinary incontinent and sexual dysfunction.

Session 2: (Lifestyle)

This session oriented the women on measures to improve urinary condition. These measures include adopting a healthy lifestyle such as balanced diet, fluid intake during the day (2500 to 3000 ml) to avoid urinary infection and intestinal constipation, quit the consumption of alcohol and caffeine products (chocolate, tea, cola soft drink).(adequate intake of calcium and vitamin D, reduce salt intake, physical activity for fitness and maintaining a normal body weight, on measures to improve urinary and genital symptoms. provide instruction about avoidance of tight clothing to avoid irritation of genitalia; wear cotton underwear because cotton prevents wetness resulting in less risk of infection; cleanse perineum following from front to back technique to prevents infection; drying genital area using tissue paper; avoid the use of douches, sprays, or irritating soaps to prevent irritation of genitalia;

Session 3: (Exercise)

This session is concerned with instructing and training women how to teach the patients to perform the pelvic floor muscle exercises (PFME). Explain that the anal and urethral muscles are used for the exercise and that the buttocks, thighs and abdomen should be relaxed. Perform 10 rapid contractions and relaxations, rest for 2 min and repeat. then: Repeat the same exercises, but contract firmly for 5 seconds and relax as slowly as possible, relax for 2 min and repeat. The exercises should be performed in the morning and afternoon, in the following positions: lying down with the legs stretched, lying with the knees bent, standing with the legs spread, standing with the legs together and for walking. Advise him to contract the muscles before and during activities that cause urine leakage, such as coughing and sneezing. perform Kegel exercises to increase the strength of vaginal and pelvic muscles and improve sphincter tone; therefore, control over urine incontinence.

Session 4: (Sexual Function)

This session is concerned with helping the women handle problems in sexual relationships by providing knowledge about phases of sexual response cycle, inform and encourage women to assume different positions during sexual intercourse, encourage regular sexual stimulation to increase vaginal blood flow and secretion, and the importance of using of water-soluble lubricant to prevent pain and irritation during intercourse. Encourage him to enhance expressions of affection and alternative forms of feeling pleasure.

Session 5: (Feedback)

It included a reassessment of studied women's' level of knowledge, sexual health and impact of urine incontinence on their quality of life through filling the study tools of data collection, including the interviewing questionnaire.

The evaluation phase (immediate, and follow up):

This phase emphasized on estimating the effect of applying the golden technique on knowledge level, sexual health status and impact of urine incontinence on quality of life among adult women with hysterectomy, through a comparison between pre, and three months follow-up test.

Ethical considerations:

Informed witness consent was obtained from each woman after explanation of the study purpose.

Confidentiality of the collected data was maintained.

Privacy, and the right to withdraw at any time.

Statistical Analysis:

The collected data were coded and entered into the statistical package for social sciences version 24. After completing the entry, the data were explored to detect any errors. Then, it was analyzed by the same program to present frequency tables with percentages. Qualitative data are presented as a number and percentage. Furthermore, quantitative data were described as mean or standard deviation, as appropriate. Chi-square test was used to examine the difference between qualitative variables, and the paired t-tests for comparing the mean scores between two different periods within the same group. Correlation coefficients are used to measure how strong a relationship is between two variables. The results were considered statistically significant at $P \leq 0.05$ and highly significant at $P < 0.01**$.

Results:

Table (1) showed that, 40.0 %of the studied woman their age ranged between 40 and less than 50 years with Mean 44.9± 4.07 years old, regarding their level of education, (52.0%, 64.0%& 56.0%) of them had secondary education, employee and lived in urban area, respectively.

Table (2) shows that 32.0% of the women being studied suffered from diabetes mellitus, about half of them did not (48.0%) of them Previous uterine surgery. Regarding types, hysterectomy procedure, (56.0% & 60.0%) of them were done total and vaginal hysterectomy, less than half of them had a fibroid is an indicator of hysterectomy and 60.0% of them had not postoperative complication.

Figure (1) Reveals that before implementing golden technique majority of the studied women (90.0%) had an inadequate level of knowledge, while after golden technique implementation, most them (88.0%) had adequate knowledge

about hysterectomy, at follow-up, less than three quarters (72.0%) of them had had adequate knowledge about hysterectomy., finally, there was a highly statistically significant difference between Knowledge-level pre, post and follow up with P-value = (0.000 **).

Table (3): Demonstrated that there was a statistically significant difference between Arousal, Pain and Satisfaction pre and follow up after applying the golden technique with P-value = (<0.05*). The total mean score of the female sexual function index increased from 63.18± 7.3pre-program to 73.13± 7.9 follow up-program (p<0.05*). conversely, there were no statistically significant differences regarding lubrication and Orgasm (P>0.05).

Table (4): Demonstrates that reduced negative impact for most items of IIQ-7among the studied women after applying the golden technique, and that there was a statistically significant reduction items at follow-up implementation of the golden technique (P<0.001).

Table (5) demonstrates that before applying the golden technique, 50.0% of the studied women suffered from severe degree of negative impact on their QOL to. it was revealed that golden technique, elicited a decrease in the negative impact of UI on Quality of Life from sever disturbance 50% before- to 0.0% after 12-weeks of golden technique. The mean values of such impact were (45.3 ±12.7 & 10.20± 0.97) before and after twelve weeks respectively. Moreover, that there a highly statistically significantly difference was found between women before golden technique compared to 12-weeks (P=0.000).

Table (6): clears the relation between patient's' personal data, their knowledge It was found that their statistically significant differences between the level of knowledge of the studied women and their level of education and residence (p < 0.05*), while that there not statistically significant differences among them and their age and job p >0.05*.

Table (7) indicates that there were highly significant statistical positive correlations between total knowledge, total female sexual index and Total Incontinence impact questionnaire (p=0.00**).

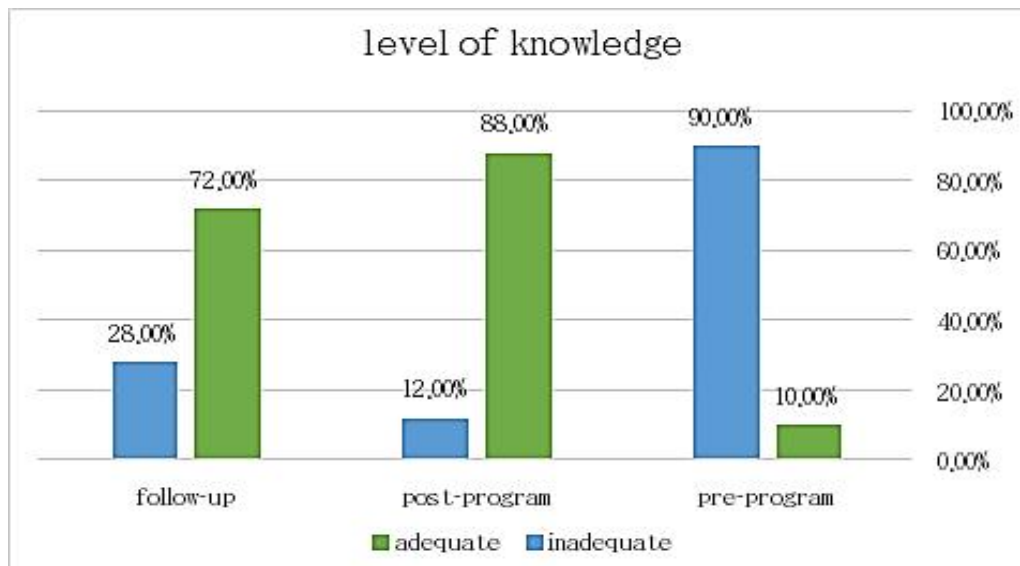**Table (1):** Distribution of the studied sample according to their personal data (n =50)

Personal data	No. (50)	%
Age: (years):		
▪ 20-	5	10.0
▪ 30-	10	20.0
▪ 40-	20	40.0
▪ 50–59	15	30.0
Mean age ± S. D	44.9±4.07	
Level of education:		
▪ Read and write	4	8.0
▪ Basic education	8	16.0
▪ Secondary	26	52.0
▪ University and postgraduate	12	24.0
Job		
▪ Employee	32	64.0
▪ Housewife	18	36.4
Residence:		
▪ Rural	22	44.0
▪ Urban	28	56.0

Table (2): Distribution of clinical data among the studied sample (n =50)

Clinical data	No. (n=50)	%
Previous of chronic disease[#]:		
▪ No	12	24.0
▪ Hypertension	10	20.0
▪ Diabetes	16	32.0
▪ Arthritis	12	24.0
▪ Urinary Tract Infection	8	16.0
▪ Osteoporosis	12	24.0
▪ Asthma	4	8.0
▪ Other (hepatitis & cataract)	3	6.0
Previous uterine surgery:		
▪ No	24	48.0
▪ Curettage	7	14.0
▪ Caesarean delivery	15	30.0
▪ Myomectomy	4	8.0
Type of hysterectomy:		
▪ Total	27	54.0
▪ Subtotal	13	26.0
▪ Radical	10	20.0
Types of hysterectomy procedure[#]:		
▪ Abdominal	20	40.0
▪ Vaginal	30	60.0
▪ Laparoscopic	25	50.0
Indication of hysterectomy:		
▪ Dysfunctional uterine bleeding	10	20.0
▪ Fibroid	23	46.0
▪ Endometrial hyperplasia	10	20.0
▪ Adenomyosis	2	4.0
▪ Endometriosis	2	4.0
▪ Uterine prolapse	3	6.0
Postoperative complication#:		
▪ No	30	60.0
▪ Hemorrhage	4	8.0
▪ Urinary bladder injury	1	2.0
▪ Paralytic ileus	1	2.0
▪ Wound sepsis	3	6.0
▪ Febrile morbidity	8	16.0

▪ ICU admission	6	12.0

More than one answer

Figure (1): level of knowledge about hysterectomy

Table (3): Distribution of the studied sample according to female sexual function index:

Female sexual function index	Pre intervention	Follow-up	P value
	Mean ± SD	Mean ± SD	
Desire	4.6 ± 0.77	8.0 ± 1.61	<0.05*
Arousal	15.9 ± 0.66	16.73±2.58	<0.05*
Orgasm	8.68 ± 1.13	12.3 ± 0.77	>0.05
Lubrication	12.90 ± 1.28	12.90 ± 1. 1	>0.05
Pain	12.90 ± 1.61	12.0 ± 0.66	<0.05*
Satisfaction	8.2± 1. 4	11.2± 1. 4	<0.05*
Total score	63.18± 7.3	73.13± 7.9	<0.05*

Table (4): Distribution of the studied adult women according to UI impact on quality of life before and after the golden technique (IIQ-7)

UI impact on Quality of Life	Preprogram		Follow up		P value
	No	%	No	%	
1. Ability to do household chores (cooking, housecleaning, laundry)?					
▪ Greatly	15	30.0	5	10.0	112.867
▪ Moderately	24	48.0	20	40.0	< .001**
▪ Slightly	6	12.0	15	30.0	
▪ Not at all	5	10.0	10	20.0	
2. Physical recreation, such as walking, swimming, or other exercise?					
▪ Greatly	12	24.0	3	6.0	121.553
▪ Moderately	22	44.0	20	40.0	< .001**
▪ Slightly	6	12.0	27	54.0	
▪ Not at all	4	8.0	10	20.0	
3. Prayer					
▪ They almost made me stop praying.	2	4.0	0	0.0	106.669
▪ Makes me repeat the prayer	12	24.0	4	8.0	< .001**
▪ Makes me repeat the ritual cleansing	23	46.0	10	20.0	
▪ Not at all	13	26.0	36	72.0	
4. Ability to travel by car or bus for more than 30 min from home?					
▪ Greatly	6	12.0	0	0.0	110.516
▪ Moderately	18	36.0	10	20.0	< .001**
▪ Slightly	22	44.0	30	60.0	
▪ Not at all	4	8.0	10	20.0	
5. Participation in social activities outside home?					
▪ Greatly	12	24.0	5	10.0	113.833
▪ Moderately	30	60.0	15	30.0	< .001**
▪ Slightly	6	12.0	25	50.0	
▪ Not at all	2	4.0	5	10.0	
6. Emotional health (nervousness, depression, etc.)?					
▪ Greatly	28	56.0	6	12.0	119.125
▪ Moderately	20	40.0	14	28.0	< .001**
▪ Slightly	2	4.0	27	54.0	
▪ Not at all	0	0.0	3	6.0	
7. Feeling frustrated?					
▪ Greatly	20	40.0	3	6.0	133.118
▪ Moderately	24	48.0	17	24.0	< .001**
▪ Slightly	6	12.0	25	50.0	
▪ Not at all	0	0.0	5	10.0	

table (5): Distribution of studied sample according to their total score of UI before and follow up golden technique (n=50)

Total IIQ-7 score	Preprogram N (%)	Follow-up program N (%)	F P value
No Problem	0 (0.0)	0 (0.0)	
Slight	0 (0.0)	5 (10.0)	
Moderate	10 (20.0)	35 (70.0)	26.1938 < .001**
Substantial	15 (30.0)	10 (20.0)	
Severe	25 (50.0)	0 (0.0)	
Total IIQ-7 score	45.3 ±12.7	10.20± 0.97	

Table (6): Relation between total knowledge level and personal data among studied women with hysterectomy (n=50)

Personal data	Total knowledge						
	Adequate		Inadequate		Total	Chi-square	
	N	%	N	%		X²	P-value
Age (years)							
20-	5	100.0	0	0.0	5	2.183	0.035
30-	9	90.0	1	10.0	10		
40-	14	93.3	1	6.7	15		
50 or more	16	80.0	4	20.0	20		
Educational level:							
Read and write	1	25.0	3	75.0	4	19.139	<0.001**
Basic education	6	75.0	2	25.0	8		
Secondary	25	96.2	1	3.8	26		
University and postgraduate	12	100.0	0	0.0	12		
Job							
Employee	30	93.7	2	6.3	32	5.069	0.061
Housewife	14	77.8	4	22.2	18		
Place of residence							
Rural	18	81.8	4	18.2	22	2.936	< 0.05*
Urban	26	92.3	2	7.7	28		

Table (7): Correlation between Total knowledge, Total female sexual index Total Incontinence impact questionnaire among the woman under study (n=50).

Variables	Pearson Correlation	Total knowledge	Total female sexual index	Total Incontinence impact questionnaire
Total knowledge	r	1	.320**	.832**
	p		0.000	0.000
Total female sexual index	r	.320**	1	.651**
	p	0.000		0.000
Total Incontinence impact questionnaire	r	.832**	.651**	1
	p	0.000	0.000	

Discussion:

Hysterectomy is considered a risk factor for urinary incontinence (UI), pelvic organ prolapses (POP) or sexual dysfunction **(Skorupska et al., 2021).**

This study appraised the effect of a golden technique on sexual Health Status and Risk of urinary incontinent among women with hysterectomy.

Related to the age of the studied sample, the current study showed that two-fifths of the women being studied their age ranged between 50 and 59 years with mean 44.9± 4.07 years old, this outcome supported with a study by **Ali et al.,**

(2018) who conducted a study about " Effect of Designed Nursing Care Protocol On Minimizing Post Hysterectomy Complications At El Manial University Hospital" and stated that less than half of the sample age being studied were ranged between 40 to less than 50 years with mean 47.7±13.2 years old.

Concerning previous chronic diseases among studied women, the results of the present study showed that the most prevalent disease among them was diabetes and followed by hypertension. Conversely, this finding was disagreement with study by **Ali et al., (2019)** who conducted a study on " Surgical approach to hysterectomy for benign gynecological diseases" and revealed that most prevalent diseases among studied sample was ischemic heart diseases, then diabetes.

Related to the type of hysterectomy, the result of present study represented that more than half of the studied sample were done total hysterectomy. This result in the same line with study by **Ferghali et al., (2020)** who conducted a study on " Implementation of Enhanced Recovery After Surgery as Protocol Versus Routine Care in Women Undergoing Hysterectomy" and showed that half of the sample being studied were done total hysterectomy.

As regards to types of hysterectomy procedure, the results of the current study displayed that less than two thirds of the studied sample performed hysterectomy through the vaginal. this outcome matched with study by **Seemab et al., (2021)** who conducted study about " Relation of Hysterectomy with Urinary Incontinence" and revealed that less than two thirds of the studied sample performed hysterectomy through the vaginal.

The present study displayed the total level of knowledge among the studied women. It is cleared that there was a highly statistically significant difference (p<0.001**) between pre, immediate and follow-up implementations. Where the total score immediately was majority of them had adequate knowledge to be less than three quarters at follow up implementation but still significantly higher than pre implementation which was very few percentages. this finding might be due to the studied woman have good readiness for learning new things were able to

learn and get correct information about hysterectomy and self-care. this finding proved hypothesis of research golden technique will improve level of knowledge among women with hysterectomy. this result consistent with study by **Chengyi, (2021)** entitled " Effectiveness of Enhanced Recovery After Surgery (ERAS) in Promoting Better Recovery in Patients Undergoing Hysterectomy for Benign Gynecologic Diseases" and concluded that improvement level of knowledge for studied women had hysterectomy after apply the program and there statistically significant difference (p<0.001**) between pre and post implementation.

Concerning sexual function, the results of the current study findings revealed that, follow up -applying golden technique, there was a highly statistically significant improvement in most domains of sexual function and in the total female sexual function index (p<0.01). This finding might be due to the practice of exercise, which, which can help strengthen weak muscles and relax tight ones; therefore, allow the vagina to be more open so, lessening pain during sexual intercourse. the exercise also improves blood circulation to the vagina and vulva, which improves sexual arousal and vaginal lubrication. Therefore, the first hypothesis "golden technique will improve the level of sexual health status among women with hysterectomy" was accepted. In congruent with the study by **Alqersh, & Ahmed, (2021)** who showed that there was a highly statistically significant improvement in all domains of sexual function and in the total female sexual function index (p<0.01).

This study demonstrated that there reduced negative impact on most items of IIQ-7among the studied women after applying the golden technique, and that there was a statistically significantly reduce item at follow-up implementation of the golden technique (P<0.001). this result congruent with **Mohamed et al., (2018)** who conducted a study on " Effect of Pelvic Floor Muscle Strengthening-Kegel's Exercise-on Severity of Stress Urinary Incontinence and Quality of Life among Women" who mentioned that reduced negative impact for most items of IIQ-7among the studied women and that there was a statistically significantly reduced item at follow-up implementation of Kegel's Exercise (P<0.001)

Related to Total IIQ-7 score among studied subjects, the results of the present study demonstrated that there was a statistically significantly reduce negative impact of UI in quality of life during follow-up implementation of the golden technique (P<0.001**). this result explained to effectiveness of the exercise strength of pelvic muscles among women and the importance of reminded to perform frequently. this result harmony with the study by **Ismail et al., (2021)** who conducted a study on " Effect of Kegel's Exercise on the Severity of Urinary Incontinence and Quality of Life among Menopausal Women" and found that Kegel's Exercise significantly improves the QoL of women with UI at (p <0.001**).

The result of current study cleared found that there statistically significant differences between level of knowledge of the studied women and their level of education and residence (p < 0.05*), while that there not statistically significant differences among them and their age and job p >0.05*. from researcher point view, this result might be due to with high level of education increase ability to acquire and learn and search about their problem. this finding supported with study by **Thakur, & Kaur, (2021)** who conducted study about " Effectiveness of pre-operative instructional program on knowledge regarding post-operative care among women undergoing abdominal hysterectomy" and showed that there statistically significant differences between level of knowledge of the studied women and their level of education and residence (p < 0.05*).

Conclusions

This study concluded that urinary incontinence and sexual dysfunction associated with hysterectomy had negative effects on the quality of life of women, golden technique has a significant positive effect on improving knowledge, sexual health status and reducing negative impact of UI on QoL of women. finally, that there were highly significant statistical positive correlations between total knowledge, total female sexual index and Total Incontinence impact questionnaire (p=0.00**).

Recommendations

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

1. Implementing the golden technique as part of routine primary care service provided for adult women.

2. The developed booklet with its simple instructions and artworks should be used in hospitals as a teaching aid for hysterectomy women.

3. Replication of the present study under different circumstances (sampling, setting, measurement, duration of management) is recommended to validate its results.

4. Qualitative research must evaluate the experience of hysterectomy among women.

Conflict of interest

No

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