American Journal of Public Health Research, 2022, Vol. 10, No. 2, 63-75
Available online at http://pubs.sciepub.com/ajphr/10/2/4
Published by Science and Education Publishing
DOI:10.12691/ajphr-10-2-4

Pre-Gynecological Examination: Impact Counseling on Women's Pain, Discomfort, and Satisfaction

Hanan Elzeblawy Hassan[1,*], Somaia Ragab Eid[2], Aml ahmed Hassan[3], Kamilia Ragab Abou-Shabana[4]

[1]Maternal and Newborn Health Nursing, Faculty of Nursing, Beni-Suef University, Egypt
[2]Assistant Lecturer of Maternal & Newborn Health Nursing, Faculty of Nursing, Beni-Suief University
[3]Professor of Obstetrics and Women's Health, Faculty of Nursing, Benha University
[4]Professor of Maternity & Gynecological Nursing, Faculty of Nursing, Ain Shams University, Egypt
*Corresponding author: nona_nano_1712@yahoo.com

Received February 12, 2022; Revised March 15, 2022; Accepted March 23, 2022

Abstract **Background**: A gynecological examination is a stressful event that is the women may respond negatively as a consequence of no orientation before the examination. **Aim**: The study was conducted to evaluate the effect of Pre-Gynecological Examination Counseling on Relieving Women's Pain, Discomfort, and enhancing their satisfaction. **Setting**: Gynecological clinic at Beni-Suef University Hospital. **Design**: A quasi-experimental study design. **Sampling**: A purposive sample was 120 women (60 Study & 60 Control). **Tools**: (1): Counseling Interview schedule; (2): Comfort and pain scale; (3): satisfaction questionnaire; (4): VAS for pain; (5): Self-reported barriers; (6): Counseling interviewing questionnaire. **Results**: there was a marked improvement in knowledge, comfort, and satisfaction associated with alleviation of pain for the studied group than the control group about gynecological examination after counseling sessions with a highly statistically significant difference at ($P<0.01$). **Conclusion**: Counseling sessions regarding pre-gynecological examination had a positive effect on relieving women's pain, discomfort and enhancing their satisfaction. **Recommendation**: reapplication counseling sessions for gynecological clinic settings in a different area. Awareness programs must be designed and instrumented at the gynecological clinic to enhance women's satisfaction and correct their miss concepts related to the gynecological examination.

Keywords: *counseling, women's satisfaction, gynecological examination, pain, discomfort*

Cite This Article: Hanan Elzeblawy Hassan, Somaia Ragab Eid, Aml ahmed Hassan, and Kamilia Ragab Abou-Shabana, "Pre-Gynecological Examination: Impact Counseling on Women's Pain, Discomfort, and Satisfaction." *American Journal of Public Health Research*, vol. 10, no. 2 (2022): 63-75. doi: 10.12691/ajphr-10-2-4.

1. Introduction

Gynecological examination is one of the physical examinations which are essential for assessing the female (internal & external) reproductive system. Among the Egyptian people, there are many traditions and concepts related to the gynecological examination. Some women, usually, rejecting to perform any gynecological examination for the first time. [1,2,3] They pay little attention and may refuse gynecologist counseling for a female reproductive system. [4] So, when the women face this exam, they become very anxious, stressed, and fearing from a situation, because they considered it is immoral issues to expose her intimate part to another person. So, it is important to assess their response regarding their first gynecological examination. [2,3]

The following steps constitute the pelvic examination: External inspection, insertion of the speculum, collection of specimens for cytology, inspection of the vaginal walls and cervix, removal of the speculum, performance of manual examination with lubricated and gloved fingers; and performance of recto-vaginal examination with new gloves. [5]

The gynecological examination is a nursing concern because the nurse is expected to be beside female pre, during, and post-gynecological examination, the nurse has a very important role in preparing women before an examination. Additionally, preparing equipment, women during an examination, instructing women about comfort and suitable position for gynecological examination, instructing women about laboratory investigation, medical treatment as well as follow-up visits to the clinic to enhance women positive response to attend regularly to the gynecological clinic. [6]

Screening pelvic examinations in the context of a well-woman visit may allow gynecologists to explain a woman's anatomy, reassure her of normalcy, and answer her specific questions, thus establishing open communication between the woman and her gynecologic care provider. Communication between the woman and her obstetrician-gynecologist may help elucidate symptomatology that a woman may not have recognized as abnormal. [7,8,9]

Women may be challenged when encountering a history of sexual trauma; a pelvic examination may trigger anxiety or post-traumatic stress disorder. Consent must be acquired. Especially during these examinations, thorough explanations of the procedure should be emphasized. Mental health counseling, anxiolytics, and various alternatives to the exam can be suggested such as only removing the underwear, having a chaperone present, self-insertion of the speculum, offering the option to have a female provider present, or having a friend or family member in the room for comfort. It should be stressed that the examiner can stop the exam at any time when requested by the patient. [10]

1.1. Significance of the Study

Critically, unstable patients (medically, emotionally, psychologically, in the availability of informed consent) are the contraindications to the gynecological examination. [11]

Several skills are required by the gynecological nurse. The most important is good communication skills. Gynecological nurses (GN) need to be particularly able to listen effectively, giving their full attention to the women; GN needs to be aware of body language and other non-verbal communication. Women will often communicate far more non-verbally than verbally, so this is an important area of skill. Questioning is an important skill for the gynecological nurse, just as it is in coaching. Gynecological nurses use questioning both to improve their understanding (as a form of clarification), and also as an active way to help expose the women's feelings and emotions, will also use reflection to show that they have heard the women, and to validate the women's feelings and words, also need to be able to build a certain amount of rapport with the women, but not to an extent that would allow her to become emotionally involved, also need to be empathetic. This means that they are aware of the women's feelings and emotions. The nature of empathy is rooted in helping women and particularly empowering them to help themselves, so this is an essential skill area for the gynecological nurse. [12-21]

Counseling has many principles: (1) Principle of acceptance-accept the woman with her physical, psychological, social, economic, and cultural conditions. (2) Principle of communication-communication should be verbal as well as non-verbal and should be skillful. (3) Principle of empathy-instead of showing sympathy put yourself in women's shoes and then give reflections accordingly (Empathy is the ability to identify with a person). (4) Principle of non-judge-mental attitude-do does not criticize or comment negatively regarding women's complaints. (5) Principle of confidentiality-always keep the women's name, and the problem strictly secretes and assures the patient about the same. (6) Principle of individuality-treat every woman as unique and respect his problem as well. (7) Principles of non-emotional involvement-not getting emotionally involved with the woman and avoiding getting carried away with her feelings. [22-26]

Furthermore, the Principles of counseling are tailor-made to the requirement of an individual's problem, emphasize thinking with the individual, avoid dictatorial attitude, and maintain a relationship of trust and confidence with the client. The client's need is to be put first; everyone participating in the counseling process must feel comfortable. Skills of warmth, friendliness, openness, and empathy are ingredients of the successful counseling process. The counselor has to listen attentively, answer the question objectively, reinforce important information, let the client make a voluntary informed decision**,** maintain the dignity of individuals as an individual is a primary concern in counseling. [27,28]

1.2. Operational Definition

Gynecological examination (Gyne. Ex.): is any procedure performed to the female genital tract where the instrument is inserted directly into the vagina. [3]

Counseling: is a purposeful relationship between two people, the first one is the client and the second one is the counselor or the researcher herself, who approach a mutually defined problem with mutual consideration of each of them to the end that the troubled one or less mature is aided to a self-determined resolution of his problem. [6,9,19]

2. Aim of This Study

This study was conducted to evaluate the effect of pre-gynecological examination counseling sessions on relieving women's pain, discomfort and enhancing their satisfaction as well.

3. Hypothesis

Women who attended pre-gynecological examination counseling sessions will have a decreased level of pain and discomfort, as well as a higher level of satisfaction compared to those who did not attend it.

4. Methodology (Material and Methods)

4.1. Design

A quasi-experimental research design (an intervention pre/post-test)

4.2. Setting

The study was conducted at the gynecological clinic at Beni-Suef University Hospital.

4.3. Sampling

Sample size: 120 women who have attended the previously mentioned study setting for the first time were included in the study (they have divided into two equal groups; 60 women for the control group and 60 for the study group).

Sample type: A purposive sample.

Inclusion criteria: Woman who attends the clinic for the first time, age from 20 to 35 years, and has a mobile or home telephone for follow up contact

Exclusion criteria: Women who complain of the following: Leucorrhea, dyspareunia, dysuria, offensive vaginal discharge, vulvar itching, and pregnant women.

4.4. Tools of Data Collection

Structured interview schedule: It was included two parts:

4.4.1. The first part: assess female general characteristics as age, occupation, residence, education, and marital status,…….. etc.

4.4.2. The second part: Seven tools were utilized in this research as the following:

4.4.3. The first tool: assess women's knowledge regarding gynecological examination (definition, Importance, time, indication, preparation, ways, equipment, contra indications, ……Etc)

The scoring system for evaluating women's knowledge was developed as the following: Knowledge was scored as a correct and incorrect answer for each knowledge question. Each question was given 1 score for the correct answer and 0 scores for an incorrect answer. The total knowledge of more than 60 % will be satisfactory level of knowledge and less than 60% will be unsatisfactory level of knowledge.

4.4.1.1. The second tool: Counseling interviewing schedule (Rinehart et al. (1998) [29]

This tool was utilized for the study group only. This tool would be used pre-gynecological examinations, and then immediately post-gynecological examinations. Counseling interviewing sheet following gathering model of counseling (GATHER approach to counseling about gynecological examination adapted from Rinehart et al. (1998) including the following parts:

Part I: "G": great the patient, and "A": asking about the following general characteristics: (Age, name, area of residence, education level, and marital status)

Part II: "T": Telling patient; Orientation about gynecological examination clinic, position during the gynecological examination, about equipment will be utilized, types of gynecological examinations, the importance of gynecological examination, advantages, and disadvantages of gynecological examinations)

Part III: "H": helping women to:

- Undress her clothes.
- Assume a comfortable position during the examination
- Save her clothes in a private place.

Part IV: "E": explaining for women:

- Gynecological examination procedure.
- Rational for each step in the procedure.
- Laboratory investigation
- Medical diagnosis
- How to take medication (dose, route, time, and its reaction).

Part V: "R": Referral: Give the patient follow up card including the following

- The regular schedule for follow up visits
- Warning signs that need immediate consultation
- Researcher's telephone number to consult at any time

4.4.1.2. The third tool: Comfort and pain scale (Erica Jacques; 2019) [30]

A standardized tool for assessing women's comfort was utilized during gynecological examination. Updated by Erica Jacques (2019) it was included eight items (Alertness, Calmness, Crying, Physical movement, Muscle tone, Facial tension, Blood pressure, Heart rate) upon each (1-3).

The scoring system was utilized; three Likert scales from 1 to 3 score in front of each statement the woman's respond 1, 2, 3 scores. The comfort score was 8-16 indicate comfort and (17-24) indicates discomfort.

4.4.1.3. The fourth tool: Patients' satisfaction questionnaire sheet. [31]

This tool was utilized for two groups Post gynecological examination. This tool was adopted from Albashayeh et al. (2019). It was included 13 statements and modified by the researcher upon each statement patients' responded to.

The scoring system was utilized, two Likert scales (1=dissatisfied and 2 =satisfied). The total score of satisfaction was 26. Satisfy ≥ 60% (that mean ≥ 16 score), and Dissatisfy < 60% (that mean <16 score).

4.4.1.4. The fifth tool: The visual analogue scale to assess pain level. [32]

A Visual Analogue Scale (VAS) is a horizontal line, 100 mm in length, anchored by word descriptors at each end. The level of pain associated with gynecological procedures was measured by asking the participants to place a line perpendicular to the VAS line at the point that best indicates their pain at present. The score was considered as the following: 0=no pain, 1-3=mild pain 4-6=moderate pain, 7-10=sever pain.

4.4.1.5. The sixth tool: Self-reported barriers

Barriers that facing women during the gynecological examination as self-reported barriers by the women designed by the researcher; included five statements upon each statement the participant respond yes or no post-intervention.

The scoring system was utilized, two Likert scales (0=no and 1=yes). The total score of self-reported barriers was 6.

This tool was utilized for the study group only but for the control group, the same tool was utilized included the first part which assessed knowledge and general characteristics.

4.4.1.6. An Instructional supportive brochure

An instructional supportive brochure was designed and distributed among women at the end of the counseling session to enhance their comfort and satisfaction. The brochure includes a definition of gynecological examination, position during the gynecological examination, equipment that will be utilized, types of gynecological examinations, and the importance of gynecological examination, advantages, and disadvantages of gynecological examinations.

4.5. Validity of the Tools

All tools of data collection were sent to three specialized University Professors, according to their comments modifications were considered.

4.6. Ethical Considerations

A letter of approval to conduct the study was obtained from the dean of faculty of nursing at Benha University. Then approval from the ethical research committee at Benha faculty of nursing was obtained to conduct the study. Another letter of approval for Beni-Suef University Maternity Hospital director included the title and the aim of the study. Informed consent was obtained from each participant in the study; the aim of the study was explained before starting the study for each participant. Each participant had the right to withdraw from the study at any time. The participant was interviewed individually in a private room.

4.7. Field Work

The study was conducted through three phases:

4.7.1. Phase 1 (Preparation Phase)

Through this phase, the researcher reviews the recent advanced national and international literature related to the study topics accordingly to then Tools of data collection were designed, finally conduct a pilot study. *Pilot study*: It was carried out on 10% (12 women) of the study subjects to assess applicability, practicability, and the clarity of the study tools then any modifications were considered. The pilot study would be excluded from the total sample.

4.7.2. Phase 2 (Implementation Phase)

The researcher had follow the previously mentioned process for counseling and interviewed and counseled three participants utilizing counseling sheet, counseling sessions were implemented through two theoretical sessions and four clinical orientation sessions duration of each session 20 minutes, number of participant three participants; method of teaching (lecture, group discussion, role-play and demonstration on the model, finally bedside teaching); media (lab top, blackboard, flip chart, patient model, tray with gynecological equipment). During the gynecological examination, each patient was assessed using pain and comfort scale and visual analog scale this was utilized during examination concerning tools to assess barriers facing women during the gynecological examination was assessed post-intervention. Finally, post gynecological examination women's satisfaction sheet was utilized. At the end of each session, an instructional supportive brochure was designed and distributed among patients at the end of the counseling session. To enhance their comfort and satisfaction.

4.7.3. Phase 3 (Evaluation Phase)

Evaluation was performed (immediately post-test) utilizing the pretest formatted tools for participant women.

4.8. Statistical Design

Data were analyzed using a statistical program for social science (SPSS) version 20.0. Quantitative data were expressed as mean±SD). Qualitative data were expressed as frequency and percentage**,** T-was used. P-value>0.05 Not significant (NS), P-value≤0.05 Significant (S), P-value≤0.01 Highly Significant

5. Results

Table 1: This shows that 40% & 36.7% of the control and study group, respectively, their age was 30-<35 years with a mean 30.5±4.3 years and 31.02±5.10 years, respectively. However, 60% & 58.3% of them from rural, 48.3% & 46.7% of control and study group had secondary level; while, 53.3% & 50% of them are working. Moreover, 78.4% & 76.7% of the control and study group were married.

Table 1. Distribution to studied and control group according general characteristics (n=120)

Items	Control group		Study group		X^2 P VALUE
	N= 60	%	N= 60	%	
Age (Year)					
20-<25	12	20	13	21.7	1.099 >0.05
25-<30	11	18.3	12	20	
30-<35	24	**40**	22	**36.7**	
≥35	13	21.7	13	21.7	
$\bar{X}$ ± S.D	**30.5±4.3**		**31.02±5.10**		
Area of residence					
Urban	24	40	25	41.7	1.132 >0.05
Rural	36	**60**	35	**58.3**	
Educational level					
illiterate	7	11.7	6	10	1.076 >0.05
Write and reading	9	15	10	16.7	
Secondary level	29	**48.3**	28	**46.7**	
High level of education	15	25	16	26.6	
Occupation					
Working	32	**53.3**	30	**50**	1.102 >0.05
Not working	28	46.7	30	**50**	
Marital status					
Married	47	**78.4**	46	**76.7**	1.184 >0.05
Widow	5	8.3	4	6.6	
Divorced	8	13.3	10	16.7	

Table 2: Demonstrates that there was a marked improvement in knowledge in the study group than the control group about pre-gynecological-examination procedures post-implementation of counseling sessions with a highly statistically significant difference at (P<0.01). All items of gynecological examination knowledge were improved during post-implementation of counseling sessions among the studied group.

The same table reveals that there was a marked improvement in knowledge of the studied group than a control group about gynecological examination after implementation of counseling sessions with a highly statistically significant difference at (P<0.01). All items of gynecological examination knowledge were improved during post-implementation of counseling sessions among the studied group.

Table 2. Women's knowledge related to gynecological procedures and examination for control and study group (n=120)

Items	Control group (N=60)		Study group (N=60) (Pre-Counseling)		Study group (N=60) (Post-Counseling)		X^2	p-value
	N=60	%	N=60	%	N=60	%		
Contraindication of gynecological examination								
Correct	17	28.3	18	30	46	76.7	[a]9.003 [b]10.564	0.006** 0.003**
Incorrect	43	71.7	42	70	14	23.3		
Measuring weight, height and blood pressure before starting examination								
Correct	12	20	11	18.3	52	**86.7**	[a]7.362 [b]8.090	0.008** 0.007**
Incorrect	48	**80**	49	**81.7**	8	13.3		
Important to take urine sample & empty the bladder before examination								
Correct	17	28.3	15	25	45	75	[a]7.901 [b]9.267	0.008** 0.005**
Incorrect	43	71.7	45	75	15	25		
Reassure women before starting the examination								
Correct	20	33.3	18	30	47	78.3	[a]10.288 [b]8.643	0.003** 0.005**
Incorrect	40	66.7	42	70	13	21.7		
Women's right to know the results of the examination								
Correct	40	66.7	39	65	54	90	[a]11.011 [b]9.511	0.002** 0.003**
Incorrect	20	33.3	21	35	6	10		
Importance to know steps of examination								
Correct	19	31.7	20	33.3	43	71.7	[a]15.009 [b]13.777	0.000** 0.000**
Incorrect	41	68.3	40	66.7	17	28.3		
Appropriate time for periodic follow-up to this examination								
Correct	18	30	19	31.7	44	73.3	[a]9.553 [b]10.832	0.006** 0.003**
Incorrect	42	70	41	68.3	16	26.7		
Meaning of gynecological examination								
Correct	19	31.7	20	33.3	46	76.7	[a]21.330 [b]15.774	0.000** 0.002**
Incorrect	41	68.3	40	66.7	14	23.3		
importance of gynecological examination								
Correct	22	36.7	21	35	42	70	[a]19.004 [b]13.908	0.001** 0.004**
Incorrect	38	63.3	39	65	18	30		
Time of performing gynecological examination								
Correct	17	28.3	18	30	45	75	[a]25.133 [b]18.564	0.000** 0.001**
Incorrect	43	71.7	42	70	15	25		
Indication gynecological examination								
Correct	18	30	16	26.7	43	71.7	[a]22.100 [b]23.064	0.000** 0.000**
Incorrect	42	70	44	73.3	17	28.3		
Women's information about preparation before examination								
Organs examined during gynecological examination								
Correct	20	33.3	19	31.7	50	83.3	[a]14.002 [b]12.110	0.004** 0.005**
Incorrect	40	66.7	41	68.3	10	16.7		
Ways of gynecological examination								
Correct	18	30	17	28.3	51	85	[a]15.344 [b]14.990	0.002** 0.003**
Incorrect	42	70	43	71.7	9	15		
Women's preparation at home in the morning								
Correct	13	21.7	15	25	49	81.7	[a]16.680 [b]17.089	0.002** 0.001**
Incorrect	47	**78.3**	45	75	11	18.3		
Equipment used in gynecological examination								
Correct	14	23.3	13	21.7	48	80	[a]10.242 [b]12.345	0.006** 0.004**
Incorrect	46	76.7	47	**78.3**	12	20		

[(a)] Control group vs Study group (post-counseling), [(b)] Study group (pre-counseling vs post-counseling)
**significant at p≤ 0.05, **highly significant at p≤0.01.*

Figure 1 portrays women's total knowledge (pre/post-counseling sessions) related to gynecological procedures and examination for control and study group. Correct knowledge was improved during the post-implementation of counseling sessions among the studied group.

Table 3: Reveals that all items of discomfort scale were significantly improved during post-counseling sessions among the studied group than the control group (p≤ 0.05).

Figure 2: Demonstrates women's total discomfort scale (pre/post-counseling sessions) related to gynecological examination for control and study group. Women's comfort scale was improved post-implementation of counseling sessions among the studied group.

Table 4: Demonstrates that, 23.3% among the control group was satisfied regarding competent and clear instruction during and post-gynecological-examination,

93.3% of them were dissatisfied regarding health provider answer your question pre, during, and post-gynecological-examination. While 96.7% among the studied group was satisfied regarding health team promoting privacy and confidentiality during the examination and 26.7% of them was dissatisfied regarding competent and clear instruction during and post-gynecological-examination.

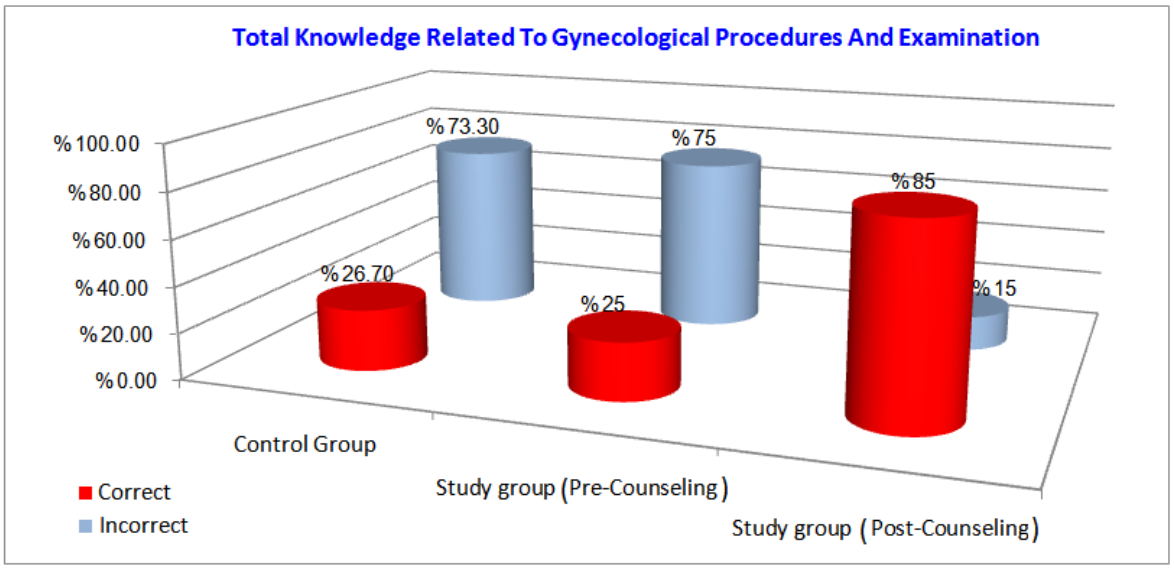

Figure 1. Women's total knowledge (pre/post-counseling sessions) related to gynecological procedures and examination for control and study group

Table 3. Comfort scale during gynecological examination for control and study group (n=120)

Items	Control		Study		X^2 P-Value
	N=60	%	N=60	%	
Alertness					
Deeply sleep	0	0	0	0	5.855 0.023*
Drowsy	3	5	8	13.3	
Fully awake or alert	57	**95**	52	**86.7**	
Calmness					
Calm	20	33.3	42	**70**	19.404 0.000**
Anxious	16	26.7	16	26.7	
Very anxious	24	**40**	2	3.3	
Crying					
No crying	39	**65**	46	**76.7**	15.343 0.000**
Gasping or sobbing	15	25	13	21.7	
Crying	6	10	1	1.6	
Physical movement					
No movement	15	25	39	**65**	16.211 0.000**
Slight movement	26	**43.3**	18	30	
Vigorous movement	19	31.7	3	5	
Muscle tone					
Muscle tone relaxed	12	20	32	**53.3**	14.003 0.000**
Reduced muscle tone	24	**40**	18	30	
Extreme muscle rigidity and flexion of fingers	24	**40**	10	16.7	
Facial tension					
Facial muscle totally relaxed	10	16.7	26	**43.3**	17.003 0.000**
Tension evident in some facial muscle	28	**46.7**	21	35	
Tension evident throughout facial muscle	22	36.6	13	21.7	
Blood pressure					
BP. below base line	9	15	5	8.3	11.360 0.000**
BP. at base line	40	**66.7**	51	**85**	
BP. above base line	11	18.3	4	6.7	
Heart rate					
Heart rate below base line	9	15	11	18.3	9.002 0.002**
Heart rate at base line	19	31.7	35	**58.3**	
Heart rate above base line	32	**53.3**	14	23.4	

*significant at p≤ 0.05, **highly significant at p≤0.01.

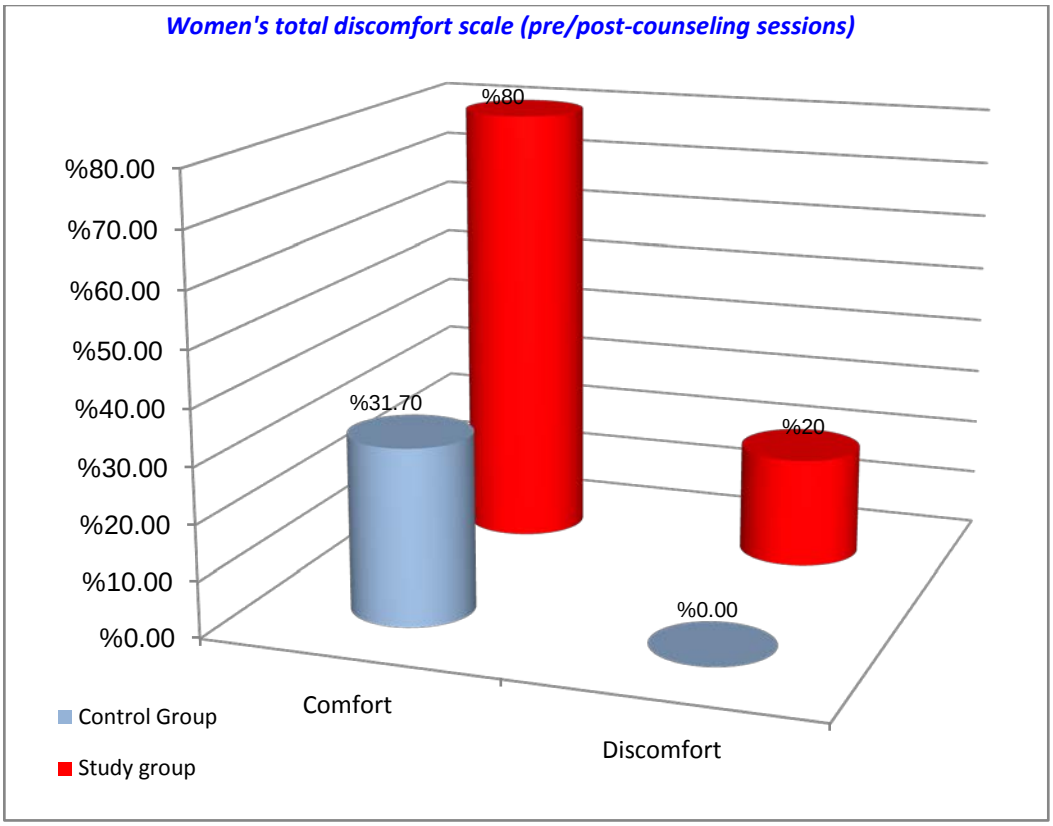

Figure 2. Women's total discomfort scale (pre/post-counseling sessions) related to gynecological examination for control and study group (n=120)

Table 4. Women's satisfaction related to post-gynecological-examination for control and study group (n=120)

Item	Control group				Study group				X^2	P-value
	Satisfy		Dissatisfy		Satisfy		Dissatisfy			
	N	%	N	%	N	%	N	%		
Instruction provided pre, during and post gynecological examination	11	18.3	49	81.7	56	93.3	4	6.7	0.127	0.721
Health provider answer your question pre, during and post gynecological examination	4	6.7	56	**93.3**	52	86.7	8	13.3	0.505	0.477
Health team respect, promote and maintain confidentiality during examination	6	10.0	54	90.0	53	88.3	7	11.7	0.881	0.348
Health team respect your right and needs	7	11.7	53	88.3	57	95.0	3	5.0	3.67	0.055*
Participant Involving in care decision making	15	25.0	45	75.0	51	85.0	9	15.0	1.08	0.297
Health team flexible to meet your needs	9	15.0	51	85.0	56	93.3	4	6.7	4.32	0.038*
Feeling of confidence lead to comfort	10	16.7	50	83.3	57	95.0	3	5.0	6.65	0.010**
Health team immediately respond to your needs	5	8.3	55	91.7	49	81.7	11	18.3	4.01	0.045*
Health team promote privacy and confidentiality during examination	7	11.7	53	88.3	58	**96.7**	2	3.3	4.24	0.039*
Health team cooperate while providing your confident care	11	18.3	49	81.7	55	91.7	5	8.3	1.224	0.268
Environment was comfort and satisfied	5	8.3	55	91.7	53	88.3	7	11.7	0.720	0.396
Promote confidentiality and privacy during examination	12	20.0	48	80.0	47	78.3	13	21.7	03.91	0.048*
Competent and clear instruction during and post gynecological examination	14	**23.3**	46	76.7	44	73.7	16	**26.7**	5.06	0.024*

*significant at p≤ 0.05, **highly significant at p≤0.01.

Figure 3 presents women's total satisfaction scale (pre/post-counseling sessions) related to gynecological examination for control and study group. Women's satisfaction was improved post-implementation of counseling sessions among the studied group.

Figure 4: Demonstrates that 80% of the barriers facing the studied group during the gynecological examination were the presence of too many medical and nursing students.

Figure 5: This shows that 55% among the control group suffered from moderate pain, while, 46.7% among the studied group were had no pain during gynecological examination post-implementation of counseling sessions with a highly significant difference at p <001.

Table 5: Reveals that, there was a positive correlation between the level of pain of the studied group and their discomfort during the gynecological examination and total satisfaction post-gynecological examination and self-reported barriers.

Table 6: Illustrates that, there was a positive correlation between levels of discomfort during gynecological examination and satisfaction level post-gynecological examination.

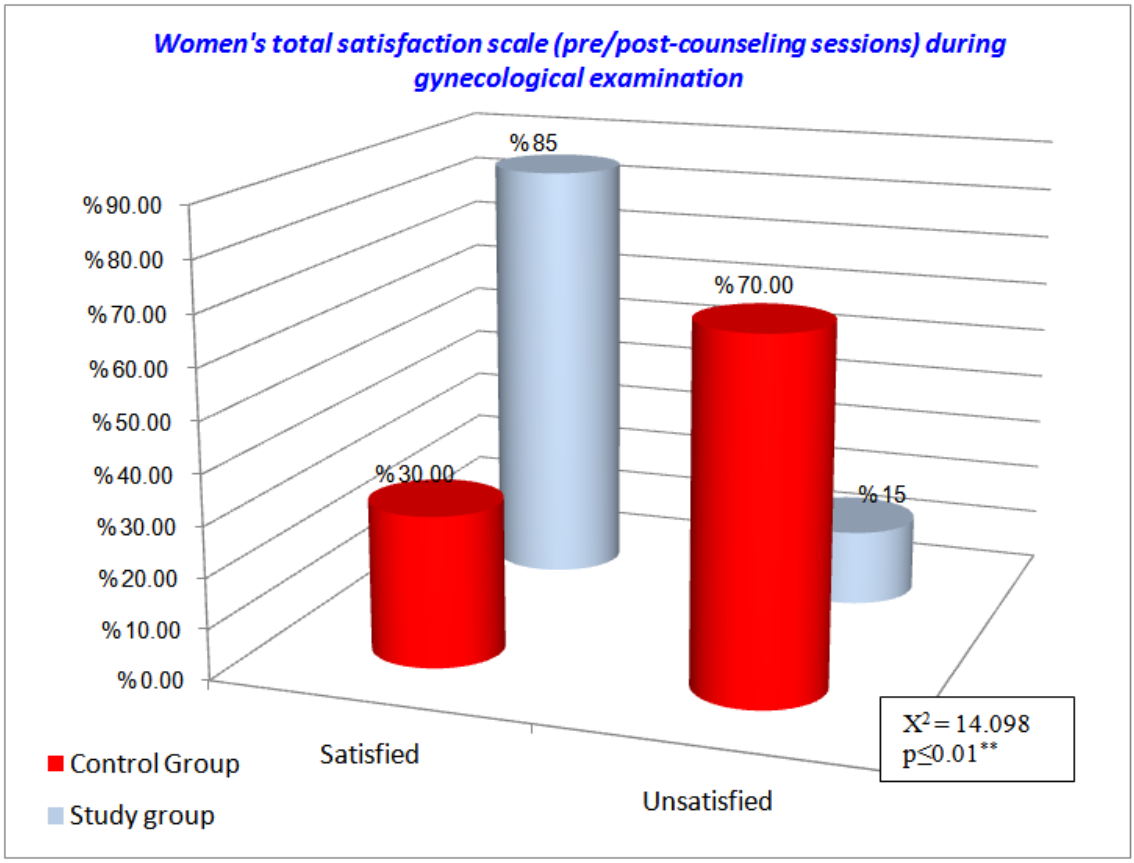

Figure 3. Women's total satisfaction scale (pre/post-counseling sessions) during gynecological examination for control and study group

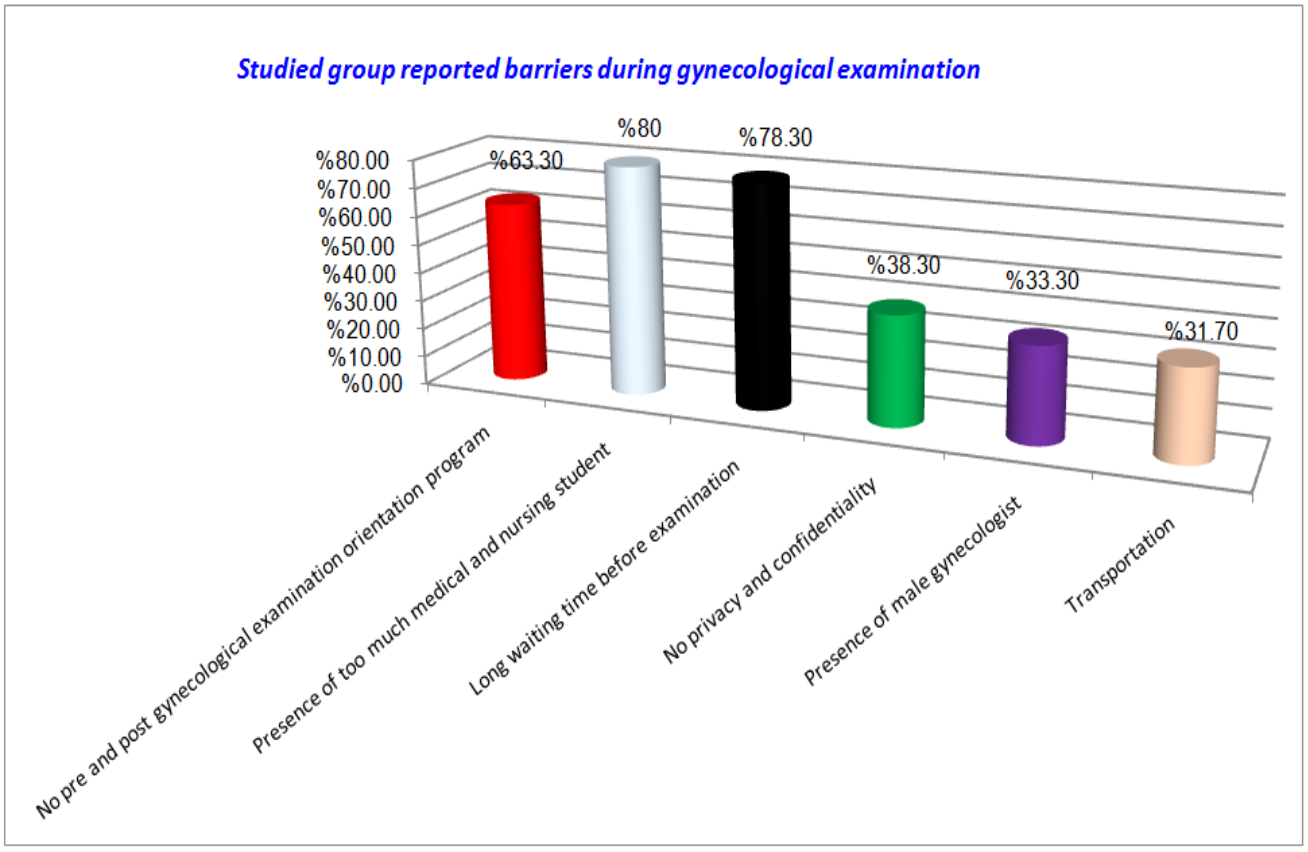

Figure 4. Studied group reported barriers during gynecological examination

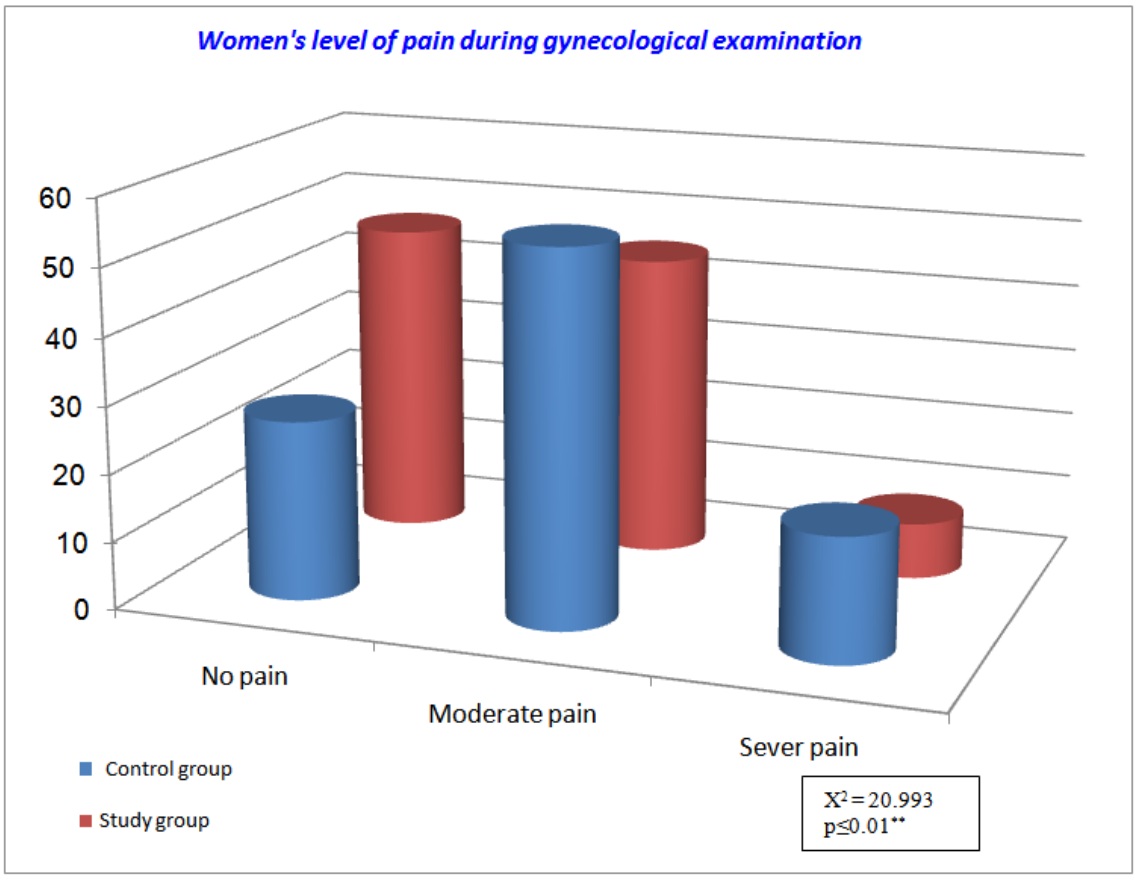

Figure 5. Women's level of pain during gynecological examination for control and study group

Table 5. Correlation between studied group level of pain and discomfort, Self-reported barriers during gynecological examination and their satisfaction post gynecological examination

Item	Total level of pain	
	R	P- value
Total discomfort	0.462	0.000**
Total satisfaction	0.690	0.000**
Self-reported barriers	25.70	0.001**

*significant at p≤ 0.05; **highly significant at p≤0.01.

Table 6. Correlation between studied group discomfort during gynecological examination and satisfaction level post-gynecological-examination

Item	Level of discomfort during gynecological examination	
	R	P- value
Satisfaction level post-gynecological-examination	0.514	0.006**

*significant at p≤ 0.05, **highly significant at p≤0.01.

6. Discussion

Gynecological examination is a stressful procedure that is the women may respond negatively as a consequence to no orientation before the examination (stress may lead to anxiety). Gynecological examination anxiety poses an obstacle for women to get the best health care which is possible The most essential reasons of anxiety experienced during gynecological examination are; sex, attitudes, professional profile of health personnel, embarrassment about dressing, examination position, used equipment, previous negative experiences of gynecological examination, inattention to privacy, religious beliefs, fear of pain, fear of pathological diagnosis, fear about personal hygiene, negative first pelvic examination experience and socio-cultural value. [33-36]

Gynecological examination is a stressful procedure that is the women may respond negatively as a consequence of no orientation before the examination (stress may lead to anxiety). Gynecological examination anxiety poses an obstacle for women to get the best health care which is possible The most essential reasons of anxiety experienced during gynecological examination are; sex, attitudes, professional profile of health personnel, embarrassment about dressing, examination position, used equipment, previous negative experiences of gynecological examination, inattention to privacy, religious beliefs, fear of pain, fear of pathological diagnosis, fear about personal hygiene, negative first pelvic examination experience, and socio-cultural value. [33-36]

In addition, women in adulthood may be experienced strong discomfort during pelvic examinations but find it necessary to reassure their health. Therefore, gynecological examination applications can cause some traumatized impacts that result in reactions such as avoidance of being examined, light anxiety, and feeling of Shame". [37,38,39]

The current study revealed that, more than two-thirds of the control group were had incorrect answers about women's preparation at home in the morning; might be due to that the women had low educational levels and lack of health awareness in the community. This finding was agreed with Bryan & Chor, (2018) who mentioned that more than half among control women were had incorrect answers regarding women's preparation at home in the

morning, despite the difference between the present study and previously mentioned author who follow the same aim and methodology agree with the study found. [40]

The current study mentioned that more than two-thirds of the studied were had incorrect answers during pre-gynecological examination counseling regarding knowledge about ways of gynecological examination which improved post-implementation of counseling session compared to the control group, this might be due to the effectiveness of counseling sessions regarding the gynecological examination.

This result was agreed with Moyer (2014) who reported a highly significant improvement in knowledge among two-thirds of the study sample post-counseling implementation. [41] Also, this study was agreed with Cavallaro et al., (2019) who reported that the majority of studied women had improvement in their knowledge after the application of counseling sessions. [42] This might be due to the effectiveness of counseling sessions in improving knowledge. This similarity between post-studied this due to following the same aim of the study and methodology.

The present study revealed that more than two-thirds of the control and studied group during pre-counseling had incorrect answers about measuring weight, height, and blood pressure before starting the examination. While, the studied group's knowledge about measuring weight, height, and pressure before starting examination was improved to become more than two-thirds of them had correct answers, this result might be due to the positive effect of counseling sessions using suitable teaching methods.

This study was agreed with Suthasmalee & Siwadune, (2015) who found that near to all studied groups had statistically significant improvement in their knowledge regarding the pelvic examination. [43] Also, this finding was agreed with Zagloul, et al., (2020) who found that a majority of the studied group their knowledge about pre-gynecological examination improved after implementing counseling sessions. [44]

Regarding the distribution of sample total correct and incorrect knowledge related to gynecological examination at control and study group, the current study revealed that there was a marked statistically significant improvement in total knowledge among the studied group about gynecological examination at study group than control group post-implementation of counseling sessions with a highly statistically significant difference at (P<0.01).

This study was agreed with Mohamed et al., (2018) who stated that more than half of the studied group had improvement in their knowledge related to a pelvic examination. [8] Also, this study was agreed with Devkota et al., (2017) who had revealed that the majority of the present studied group had improvement in their knowledge. [45]

Concerning to discomfort scale during the gynecological examination at the control and study group, the present study had revealed a marked statistically significant improvement in the discomfort scale during gynecological examination among the study group than the control group post-implementation of a counseling session at P<0.01. This improvement might be due to the positive effects of counseling sessions. This result was in agreement with Taylor et al., (2017) who revealed that two-thirds of the studied group had improvement in comfort feeling during gynecological examination. [46] Also, this finding was agreed with O'Laughlin et al., (2021) who revealed that a majority of the studied group had improvement in comfort feeling during gynecological examination. [47]

Regarding studied sample satisfaction post-gynecological examination, the present study found that there was a marked statistically significant satisfaction post-gynecological examination among study group more than control group post-implementation of counseling session highly statistically significant difference at P<0.01.

This result agreed with Wang & Yao, (2021) who found that a majority of the studied group had statistically significant satisfaction post gynecological examination after implementation of the counseling program. [48] Also, this finding was agree with Alqersh, (2021) who reported that two-thirds of studied women had satisfied post examination. [49]

Concerning women's total satisfaction during the gynecological examination, the present study revealed a majority of the studied group sample was satisfied post-gynecological examination post-implementation of counseling sessions; this might be due to the effectiveness of counseling sessions. This result is in agreement with Lasslo, (2019) who showed that half of the studied among were satisfied post gynecological exams after implementation of counseling sessions. [50] Also, this result has disagreed with Galaal et al., (2011) who found that a majority of the studied group had unsatisfactory level post-gynecological examination after providing information leaflets. [51] This may be due to differences in cultural education, environment, and effectiveness of counseling sessions.

The current study found that two-thirds of the control group were dissatisfied with the post-gynecological examination. This result was in agreement with Kaya et al., (2017) who reported that a majority of the studied group had unsatisfactory levels during gynecological examination. [52]

Regarding self-reported barriers that face women during their gynecological examination, the present study revealed that two-thirds of the studied group mentioned that the main barrier facing them during the gynecological examination was the presence of too many medical and nursing students. This result was agreed with Wanderley et al., (2019) who found that more than half of the studied group had expressed discomfort in presence of medical students. [53] Contrariwise, this result disagreed with Subki et al., (2018) who reported that a majority among the studied group expressed more comfort with medical students might be due to traditional and cultural issues and women's socioeconomic status. [54]

However, the present study revealed that two-thirds of the studied group their a self-reported barrier during the gynecological examination was long waiting time before examination. This result was in agreement with Eid et al., (2019) who reported that more than half among the studied group had reported long waiting time before the examination as a barrier. [3]

Concerning the utilization of visual analog scale to assess pain during the examination, the present study finding had revealed a highly statistically relation between

study and control group concerning the evaluation of pain during gynecological examination regarding the level of pain during gynecological examination with a highly statistically significant difference at P<0.01. Also, evidence that there was a significant improvement in pain among the study group compared to the control group, revealed that slightly more than half of the control group had moderate, and only one quarter among them had no pain during gynecological examination. This study was supported by Hassan et al., (2018) who found that two-thirds of the studied group had a high frequency of pain this might be due to differences in tolerance of pain from women to women. [7]

The present study revealed that more than one-third of the studied group had no pain, and only one-quarter among the studied group had severe pain during gynecological examination post-implementation of counseling. This study was agreed with Tzeng, (2018) who reported that more than half of the studied group had no pain during the gynecological examination after implementation of the education program. [55] Also, this result is supported by Ozbek & Sumer, (2019) who revealed that a majority of the studied group had no pain after implementation counseling sessions. [56]

Regarding the correlation between studied group level of pain and discomfort during the gynecological examination and their satisfaction post-gynecological examination, the present study revealed a positive correlation between the level of pain among the studied group and their discomfort during the gynecological examination and their satisfaction post-gynecological examination. This result was agreed with Yilmaz & Demirel, (2021) who reported that there was a positive correlation between the level of pain among the studied group during the gynecological examination and their satisfaction post gynecological examination. [57]

Related to the correlation between the level of pain among the studied group and their discomfort during the gynecological examination, the current study revealed a positive correlation between the level of pain among the studied group about the gynecological examination and their discomfort during gynecological examination. This result agreed with Aktas et al., (2017) who found that there was a positive correlation between patients' level of pain among the studied group and their satisfaction level post gynecological examination. [58]

Related to the correlation between the level of pain and studied group reported barriers during the gynecological examination, the present study revealed a positive correlation between levels of pain among the studied group and reported barriers during gynecological examination. This result was agreed with Kaya et al., (2017) who revealed that there was a positive correlation between levels of pain among the studied group and self-reported barriers during gynecological examination. [52]

Regarding the correlation between the studied group level of discomfort during gynecological examination and satisfaction level post gynecological examination. The current study revealed that there was a positive correlation between levels of discomfort during gynecological examination and satisfaction level post-gynecological examination. This result was supported by Tancman et al., (2021) who reported that there was a positive correlation between levels of discomfort during gynecological examination and satisfaction level post gynecological examination. [37]

The aim of the study was significantly achieved within the framework in the present study research hypothesis which was Application of pre-gynecological-examination counseling would minimize pain, discomfort and maximize patient satisfaction. This was significantly approved from the present study research findings because the knowledge among majority studied group highly significant improvement in their knowledge post-intervention compared to pre-intervention with a highly statistically significant difference at P<0.01. This result might be due to the positive effect of the counseling sessions.

7. Conclusion and Recommendations

It was evident from the present study finding that there was high effectiveness of the implemented counseling session on improving studied group knowledge, and enhancing their satisfaction; which stressed the importance of re-application counseling sessions for gynecological clinic settings in a different area.

References

[1] Sarpkaya & Vural. The use of the way of knowing four in gynecological examination in Nursing. Journal agent. 2014; 7(2): 124-127.

[2] Metz & Gussman. Screening pelvic examination in adult women. Ann Intern Med., 2014; 161(12): 925.

[3] Eid S., Hassan H., Fathy W., Abou-Shabana K. Study Women Verbal and Nonverbal Response, During Their First Gynecological Examination. American Journal of Nursing Research. 2019; 7(1): 1-7.

[4] Hassan H. Infertility profile, psychological ramifications and reproductive tract infection among infertile women, in northern Upper Egypt. Journal of Nursing Education and Practice. 2016; 6(4): 92-108.

[5] LeBlond R., Brown D., Suneja M., Szot F. The Female Genitalia and Reproductive System. In DeGowin's Diagnostic Examination, New York, NY: McGraw-Hill Education. 2015; Retrieved from http://mhmedical.com/content.aspx?aid=1106296141.

[6] Abou-Shabana R., Hassan A., Eid S., Hassan H., Effect of Counseling Sessions on Women's Satisfaction during Gynecological Examination. Journal of Obstetrics Gynecology and Reproductive Sciences, 2022; 6(1).

[7] Hassan S., Abdel Hakeem S., & Mohamed M. Investigate young female reaction concerning their Gynecological examination. American Journal of Nursing Research, 2018; 6(5): 282-290.

[8] Mohammed F., Shahin M., Youness E., Hassan H. Survivorship in Women Undergoing Gynecological and Breast Cancer Treatment in Upper Egypt: The Impact of Quality of Life Improvement Educational Program". American Research Journal of Gynaecology. 2018; 2(1): 1-28.

[9] Hassan H., Eid S., Hassan A., Abou-Shabana R. Study Women's Knowledge, Pain, Discomfort, and Satisfaction during First Gynecological Examination. American Journal of Medical Sciences and Medicine, 2022; 10(1).

[10] Jennings C., Blake J. Screening pelvic examinations in asymptomatic, average-risk adult women. Annals of internal medicine, 2014; 161(12):924.

[11] Henderson J., Redshaw M. Women's experience of induction of labor: a mixed methods study. Acta obstetricia et gynecologica Scandinavicam 2013; 92(10): 1159-67.

[12] Qalawa Sh., Eldeeb A., & Hassan H. Young Adult Women's intention regarding breast and cervical cancer screening in Beni-Suef. Scientific Research Journal, 2015; 3(3): 11-24.

[13] Al Khudairi H., Abu-Zaid A., Alomar O., Salem H: Public awareness and knowledge of pap smear as a screening test for cervical cancer among Saudi population in Riyadh City. Cureus, 2017; 9(1).

[14] Hassan H., Atwa A. Occupational Stress, Job Satisfaction and Cervical Screening Intention of Maternity Oncology Nurses, Medical Science & Healthcare Practice, 2017; 1(1): 48-59.

[15] Nady F., El-Sherbiny M., Youness E., Hassan H. Effectiveness of Quality of Life Planned Teaching Program on Women Undergoing Gynecologic Cancer Treatment. American Research Journal of Oncology. 2018; 1(1): 1-17.

[16] Mohammed F., Shahin M., Youness E., Hassan H. Survivorship in Women Undergoing Gynecological and Breast Cancer Treatment in Upper Egypt: The Impact of Quality of Life Improvement Educational Program". American Research Journal of Gynaecology. 2018; 2(1): 1-28.

[17] Said S., Hassan H., Sarhan A. Effect of an Educational Intervention on Women's Knowledge and Attitude Regarding Cervical Cancer. American Journal of Nursing Research. 2018; 6(2): 59-66.

[18] Ragab S., (2022) Effect of Pre-Gynecological Examination (gycol.EX) Counseling session on Relieving Women's Pain, Discomfort, and Enhancing their Satisfaction. A Thesis Submitted to Faculty of Nursing, Benha University.

[19] Hassan H., Mohammed R., Ramadan S., Masaud H. Call for Alleviating Sexual Issues among Cervical Cancer Survivors' Women in Northern Upper Egypt. Journal of Obstetrics Gynecology and Reproductive Sciences, 2021; 5(3): 1-11.

[20] Hassan H., Ali R., Abd El Salam S., Kamal H. Impact of an Educational Program on Sexual Dysfunction Associated With Cervical Cancer. Journal of Cancer Research and Treatment, 2021; 9(2): 22-31.

[21] Hassan H., Ramadan S., Ali R., Kamal H. Sexual Issues among Cervical Cancer Survivors' Women in Northern Upper Egypt. Journal of Advanced Trends in Basic and Applied Science, 2021; 1(1): 1-11.

[22] Abou Shabana K., Hassan H., Fathy W., Ragab S. Women's Emotional Response Concerning First Gynecological Examination. International Standard Book Number (ISBN) 978-620-3-58259-8, LAMBERT: Academic Publishing. 3/2021.

[23] Hassan H., Mohammed R., Ramadan S., Masaud H. Impact of an Educational Program on Sexual Issues among Cervical Cancer Survivors' Women in Northern Upper Egypt. Journal of Obstetrics Gynecology and Reproductive Sciences, 2021; 5(1): 1-16.

[24] Ali R., Abd El Salam S., Kamal H., Hassan H. Women with Cervical Cancer: Impact of an Educational Program their Knowledge. Journal of Obstetrics Gynecology and Reproductive Sciences, 2021; 5(2): 1-8.

[25] Hassan H. Evidence-Based Practice in Midwifery and Maternity Nursing for Excellent Quality of Care Outcomes. American Journal of Nursing Research, 2020; 8(6): 606-607.

[26] Ragab S., Women's Emotional Response Concerning First Gynecological Examination. A Thesis Submitted to Faculty of Nursing, Ain Shams University. 2018.

[27] Hassan H. The Impact of Evidence-Based Nursing as the Foundation for Professional Maternity Nursing Practices. Open Access Journal of Reproductive System and Sexual Disorder, 2019; 2(2): 195-197.

[28] Hassan H., Saber N., Sheha E. Comprehension of Dyspareunia and Related Anxiety among Northern Upper Egyptian women: Impact of Nursing Consultation Context Using PLISSIT Model. Nursing & Care Open Access Journal. 2019; 6(1): 1-19.

[29] Rinehart W., Rudy S., Drennan M. GATHER guide to counseling. Population Reports. Series J: Family Planning Programs, 1998; (48): 1-31.

[30] Erica Jacques. Common types of pain scales, 2019.

[31] Albashayreh A., et al., Psychometric properties of an Arabic version of the patient satisfaction with nursing care quality questionnaire. The Journal of Nursing Research, 2019; 27(1): 1.

[32] Gillian A. Measures of adult pain: Visual Analog Scale for Pain (VAS Pain), Numeric Rating Scale for Pain. NRS Pain, 2011.

[33] Ahuja C. & Cron J. Pelvic Examinations in the Adolescent and Young Adult Population: A Commentary on Why and When. Journal of Pediatric and Adolescent Gynecology, 2021; 34(6): 783-786.

[34] Elzeblawy H., Kamal H., Abd El Salam S., Ali R. Survivors from Cervical Cancer: Impact of an Educational Program on Self-Knowledge and body-Image. Public Health Open Access, 2021; 5(2): 1-9.

[35] Ali R., Kamal H., Hassan H., Abd El Salam S. Impact of an Educational Program on Sexual Distress Associated With Cervical Cancer. Further Applied Healthcare, 2021; 1(1): 30-42.

[36] Kamal H., Ali R., Abd El Salam S., Hassan H. Self-Knowledge among Women with Cervical Cancer. Journal of Cancer Research and Treatment, 2021; 9(1): 12-21.

[37] Tancman S., HaCohen N., Lazarus G., Solt I., Sagi-Dain L. Silent voices that must be heard – women's perceptions of gynecologic examinations. Journal of Psychosomatic Obstetrics & Gynecology, 2021; 1-8.

[38] Hassan, H., Bayoumi, M., & Atwa, A. Emotional Distress Associated with Gynecologic and Breast Cancer in Beni-Suef City. International Journal of Science and Research, 2016; 5(2): 1118-1129.

[39] Mohamed A., Hassan H., Gamel W., Arafa A. Awareness about breast and cervical cancers among nursing students in Beni-Suef University. Journal of Nursing Education and Practice, 2019; 9(5): 44-51.

[40] Bryan F., & Chor J. Factors influencing young women's preparedness for their first pelvic examination. Obstetrics & Gynecology, 2018; 132(2): 479-486.

[41] Moyer V. Risk assessment, genetic counseling, and genetic testing for BRCA-related cancer in women: U.S. Preventive Services Task Force recommendation statement. Annals of Internal Medicine, 2014; 160(4): 271-281.

[42] Cavallaro F., Benova L., Owolabi O., Ali M. A systematic review of the effectiveness of counselling strategies for modern contraceptive methods: What works and what doesn't? BMJ Sexual & Reproductive Health, 2019; 46(4), 254-269.

[43] Suthasmalee S. & Siwadune T. Can Viewing a Video of Colposcopic Examination Improve Patient Knowledge and Satisfaction with the Procedure? A prospective randomized controlled trial. Thai journal of obstatric and gynecology, 2015; 23(2), 512.

[44] Zagloul M., Naser E., Hassan H. Cervical Cancer Knowledge, Attitude, and Practices: Educational Program Management for Female Workers at Port Said University. International Journal of Studies in Nursing, 2020; 5(3): 1-16.

[45] Devkota R., Khan G., Alam K., Sapkota B., Devkota D. Impacts of counseling on knowledge, attitude and practice of medication use during pregnancy. BMC Pregnancy and Childbirth, 2017; 17(1).

[46] Taylor A., McDonagh D., Hansen J. Improving the pelvic exam experience: A human-centered design study. The Design Journal, 2017; 20 (1): S2348-S2362.

[47] O'Laughlin J., Strelow B., Fellows N., Kelsey E., Peters S., Stevens J., Tweedy J. Addressing anxiety and fear during the female pelvic examination. Journal of Primary Care & Community Health, 2021; 12, 215013272199219.

[48] Wang F. & Yao D. Application effect of continuous quality improvement measures on patient satisfaction and quality of life in gynecological nursing. American Journal of translation research, 2021; 13(6): 6391-6398. PMCID: PMC8290808.

[49] Alqersh. D. Effect of infertility clinic nurse communication skills training on women satisfaction. Egyptian Journal of Health Care, 2021; 12(1): 1063-1078.

[50] Lasslo J. The influence of patient-provider interaction, self-concept, and the socio-physical environment on pelvic exam seeking behavior, anxiety, and the health care experience. University of Kentucky uknowledge, 2019; 10(1): 412.

[51] Galaal K., Bryant A., Deane K., Al-Khaduri M., Lopes A. Interventions for reducing anxiety in women undergoing colposcopy. Cochrane Database of Systematic Reviews, 2011.

[52] Kaya S., Maimaiti N., Gorkemli H. Assessing patient satisfaction with obstetrics and gynaecology clinics/outpatient department in university hospital Konya, Turkey. International Journal of Research in Medical Sciences, 2017; 5(9): 3794.

[53] Wanderley M., et al. Attitudes and personal attributes regarding patient receptivity towards the participation of medical students in Gynecological consultations: A cross-sectional study. Revista

Brasileira de Ginecologia e Obstetrícia / RBGO Gynecology and Obstetrics, 2019; 41(10): 613-620.

[54] Subki A., et al., Women's perception and attitude to medical students' participation in obstetrics and gynecology care. Saudi Medical Journal, 2018; 39(9): 902-909.

[55] Tzeng Y. The effect of the cloud-based health education mode on the anxiety, fatigue and self-care of women undergoing gynecological laparotomy. 2018.

[56] Ozbek H. & Sumer H. The Effect of Supportive Midwifery Approach on the Level of Anxiety of Women Undergoing Pelvic Examination. Cumhuriyet University Institute of Health Sciences Journal, 2019; 4 (1): 45-54.

[57] Yilmaz F. & Demirel G. The relationship between body privacy and anxiety in women having gynecological examination. Journal of Obstetrics and Gynaecology, 2021: 1-4.

[58] Aktas D., Kumas M., Odabasıoglu B., Kaya A. Effect of a special examination gown and nature-based sounds on anxiety in women undergoing a Gynecological examination. Clinical Nursing Research, 2017; 27(5): 521-539.