

## Effect of Murottal Al-Qur'an Therapy and Finger Handheld Relaxation Technique on Postoperative Pain and Self-esteem among Women with Gynecological Cancers

Om Hashim Mahmoud Mahmoud Saadoon<sup>1</sup>, Shaimaa Fouad Mohammed<sup>2</sup>,  
Reda AbdElhady Elshouky<sup>3</sup> & El- Shaimaa El-Ansary<sup>4</sup>

<sup>1,2,4</sup>Assistant Professor of Woman's Health and Midwifery Nursing, Faculty of Nursing, Mansoura University, Egypt.

<sup>3</sup> Professor of Obstetrics & Gynecology, Faculty of Medicine, Mansoura University, Egypt.

**Corresponding author:** Om Hashim Mahmoud

**Email:** dromhashim123@gmail.com.

**Background:** Gynecological cancers occur in millions of women of all ages. Its surgical treatment can result in pain and low self-esteem. Nonpharmacological measures, such as Murottal Al-Qur'an and finger handheld relaxation technique play a role in alleviating these problems. **Aim:** Evaluate the effect of Murottal Al-Qur'an therapy and finger handheld relaxation technique on postoperative pain and self-esteem among women with gynecological cancers. **Subjects and Method: Design:** A quasi-experimental research design was used. **Subjects:** A non-probability purposive sample of 100 postoperative gynecological cancers women was recruited from the Gynecologic Oncology Unit, department of Obstetrics & Gynecology at Mansoura University Hospitals, Egypt. **Tools:** Three tools were used: Assessment sheet, Numeric Pain Rating Scale, and Rosenberg's Self-Esteem Scale. **Results:** There was a significant reduction of pain among the intervention group on the 3<sup>rd</sup> day post-gynecological surgery, compared to the control group ( $1.88 \pm 1.29$  versus  $5.18 \pm 1.32$ ) with a highly statistically significant difference ( $p=0.001$ ). Self-esteem was also better among the intervention group compared to the control group ( $22.24 \pm 3.67$  versus  $13.54 \pm 5.99$ ) with a highly significant difference ( $p=0.001$ ). **Conclusion:** Murottal Al-Qur'an therapy and finger handheld relaxation technique were effective for relieving postoperative pain and increasing self-esteem among women with gynecological cancers. **Recommendations:** Treatment of women with gynecological cancers should incorporate Murottal Al-Qur'an therapy and finger handled relaxation techniques to reduce the severity of pain and enhance self-esteem.

**Keywords:** Gynecological cancers, Finger handheld, Murottal Al-Qur'an therapy, Postoperative pain, Self-esteem

## Introduction

Gynecological cancers are cancers that originate in different female reproductive organs (predominantly the uterus, cervix, and ovaries) due to rapid growth and spread of abnormal cells in one of these organs. They affect millions of women of all ages, and their prevalence varies according to ethnicity and geographic area (Somasegar et al., 2024).

The diagnosis of gynecological cancer radically changes the lives of women and their husbands. The women may experience pelvic pain, abnormal vaginal bleeding or discharge, increased need to urinate, constipation, sexuality changes, and body image disturbances that negatively affect women's lives (Dahar et al., 2024).

Treatment of gynecological cancers varies according to the size, type, and spread of the cancer (Centers for Disease Control and Prevention, 2022). It may include surgery, chemotherapy, and radiation. Surgical treatment is an operation of cancer tissue removal and distant spread evaluation. It may involve highly invasive procedures associated with various complications such as pain at the surgery site, bleeding, blood clots, infection, and low self-esteem. These complications are largely affected by surgical procedures and women's characteristics such as age, body weight, general health, and cancer stage (Singh et al., 2022).

Postoperative pain is a severe complication of surgical treatment of

gynecological cancers (National Cancer Institute, 2024). It occurs due to damage to normal cells and body tissue. The location and severity of pain depend on the type of surgical procedure. Postoperative pain is a common unpleasant experience that causes substantial physical and psychological burden and distress. It exerts a significant impact on women's well-being and quality of life. It reduces women's ability to recover and maintain self-care, increasing their need for palliative care, and reducing disease resistance (Rydmark & Carina, 2021; Dahar et al., 2024). Thus, early identification, assessment, and standardized management of such pain are crucial in reduction, prevention or delay of its progression and to improve the women's self-esteem and quality of life (Healy, 2024).

Surgical management can also affect women's self-esteem. A persistent feeling of helplessness may be the basic cause of a woman's suffering when she experiences chronic pain (Ohnesorge et al., 2020). It changes the way the woman feels about herself. She may feel unhappy with her body image or about scars from surgery (Aquil et al., 2021). Woman is frequently disappointed and unable to cope with the disease due to low self-esteem which implies a negative attitude toward the self. These feelings affect relationships with others, especially intimate relationship (Milad, et al., 2022).

Management of postoperative complications is essential not only to

alleviate pain intensity but also to reduce women's suffering and improve their self-esteem. There are several postoperative pharmacological and non-pharmacological approaches to manage pain. Pharmacological management includes medications and medical procedures. Non-pharmacological management includes massage therapy, physical therapy, guided imagery, and relaxation techniques such as Murottal Al-Qur'an therapy, and finger handheld relaxation (**Wu et al., 2023**).

Murottal Al-Qur'an therapy is a non-pharmacological management that has a healing effect through listening to the recitation of Al-Qur'an (**Putri, Chairani, & Valentina, 2020**). It can be used to decrease pain levels through the stimulation of alpha brain waves which activate natural endorphins, increase feelings of comfort, reduce stress, and divert patient attention (**Wahyuningsih, et al., 2024**). Al-Qur'an builds the self-esteem of women. It makes them remember Allah, not blame themselves for the disease, and convert their negative experiences to pleasant thoughts to deal with emotional distress (**Milad et al., 2022**).

Murottal Al-Qur'an therapy is a spiritual therapy that can be used to lower postoperative pain, remove negative emotions, and create a sense of relaxation (**Moulaei et al., 2023**). It provides women with a unique power to face the various challenges in their life. It also

improves their self-esteem by developing positive skills and habits such as being optimistic and grateful at happy times, being patient at hard times, avoiding comparing themselves with others, avoiding doing sins, helping others, telling the truth, spreading positivity, and being hygienic. High self-esteem helps women feel secure with themselves and form successful relationships with others (**The Muslim Life Coach Institute, 2022**).

Finger handheld relaxation is another non-pharmacological management that can be used to reduce postoperative pain intensity (**Yunita, Idhayanti & Tunggadewi, 2022**). It is a simple way to manage physical and emotional tension by grasping a finger while breathing deeply (relaxation) (**Elnosary et al., 2024**). Holding the finger warms the energy entry at located energy channels. Electricity waves are pumped to the brain and the nerves in the body organs that have interference. This blocks the energy path that reduces pain intensity. Besides that, finger handheld relaxation acts as a pharmacological postoperative pain therapy through its narcotic effect (**Haniyah & Adriani, 2020**).

Finger handheld relaxation depends on touching fingers (acupressure strategy) and breathing to balance energy in the body. It helps with the movement of all the joints, together with the auxiliary muscles of the palm, in a way that reduces the pain and makes the area more flexible (**Calisanie & Ratnasari, 2021**).

Nurses play an important role in helping women with gynecological cancers achieve sufficient control over their postoperative pain and self-esteem, as well as other physical and psychological symptoms. They also help them restore their autonomy rapidly in the postoperative phase through accurate pain assessment, implementing pain relief measures, guiding women and their families. So, nurses should possess expert knowledge and competent practice regarding pharmacological including analgesics and non-pharmacological strategies including Murottal Al Qur'an therapy and finger handheld relaxation technique to familiarize gynecological cancers' women with these techniques **(Wu et al., 2023)**.

Women require unconditional self-acceptance with dignity depending on willingness to accept whatever happens. When they practice Murottal Al Qur'an therapy and finger handheld relaxation technique, these techniques can reduce their postoperative pain and improve self-esteem to pass the disease stages **(Milad et al., 2022)**.

#### **Significance of the study**

Gynecological cancers remain a prevalent cause of mortality among women **(Priyadarshini et al., 2024)**. The global burdens of cancer, incidence and mortality are escalating rapidly. According to the Global Cancer Observatory report, gynecological cancers account for about 40% of all cancer cases and over 30% of all cancer-related deaths worldwide **(Ferlay et al., 2021)**.

The total number of cases with gynecological lesions at Gynecologic Oncology Unit at Mansoura University Hospitals in the period between May 2022 to April 2023, was 137 cases: 47 (34.3%) endometrial, 37 (27%) cervical, 27 (19.7%) ovarian malignancies, 21 (15%) gestational trophoblastic neoplasia, and 5 (3.6%) vulvar and vaginal malignancies **(Elkenawi et al., 2024)**.

Surgical treatment of gynecological cancers is associated with various complications including postoperative pain and low self-esteem **(Singh et al., 2022)**.

Murottal Al-Qur'an audio therapy is safe, applicable, and has no harm. It has been applied in previous studies and has shown a positive therapeutic effect on heart rate, blood pressure, anxiety, depression, and stress **(Nurhusna et al., 2020; Purnawan, et al., 2021)**. Finger handheld relaxation is also easy to do and does not have harmful effects **(Calisanie & Ratnasari, 2021)**. It is used in hypertensive patients and post-caesarean section women to decrease pain and anxiety levels **(Handoyo & Hartati, 2021; Pongoh et al., 2020; Emara et al., 2022)**. Unfortunately, there is a limited number of research on using Murottal Al Qur'an therapy and finger handheld relaxation in gynecological cancer women in Egypt. This provokes the researchers to evaluate their effect on postoperative pain and self-esteem among women with gynecological cancers.

**Aim of the study**

To evaluate the effect of Murottal Al-Qur'an therapy and finger handheld relaxation technique on postoperative pain and self-esteem among women with gynecological cancers.

**Research Hypotheses:**

- Women with gynecological cancers who receive Murottal Al-Qur'an therapy and practice finger handheld relaxation technique experience lower postoperative pain than those who don't.
- Women with gynecological cancers who receive Murottal Al-Qur'an therapy and practice finger handheld relaxation technique experience higher postoperative self-esteem than those who don't.

**Operational Definitions:**

**Murottal Al-Qur'an therapy** refers to listening to the recitation of Surah Ar-Rahman.

**Finger handheld relaxation** refers to touching each finger (index, middle, ring, and little) and applying gentle pressure at a time to the thumb.

**Subjects and Method****Research design:**

A quasi-experimental design (intervention and control groups) was used to evaluate the effect of Murottal Al-Qur'an therapy and finger handheld relaxation on postoperative pain and self-esteem among women with gynecological cancers.

**Study setting:**

This study was conducted at the Gynecologic Oncology Unit, department of Obstetrics & Gynecology at Mansoura University Hospitals, Egypt.

**Subjects:**

A non-probability purposive sample of 100 women was recruited from the previously mentioned setting. The total sample was divided into two groups, intervention and control group each included 50 women.

**Inclusion criteria:** (1) On the first day (< 8 hours) of postoperative gynecological cancers, (2) Muslims and conscious.

**Exclusion criteria:** (1) Women with hearing impairments, (2) Chronic medical diseases such as heart disease, diabetes mellitus, and kidney diseases, (3) Psychological disorders such as depression, and anxiety.

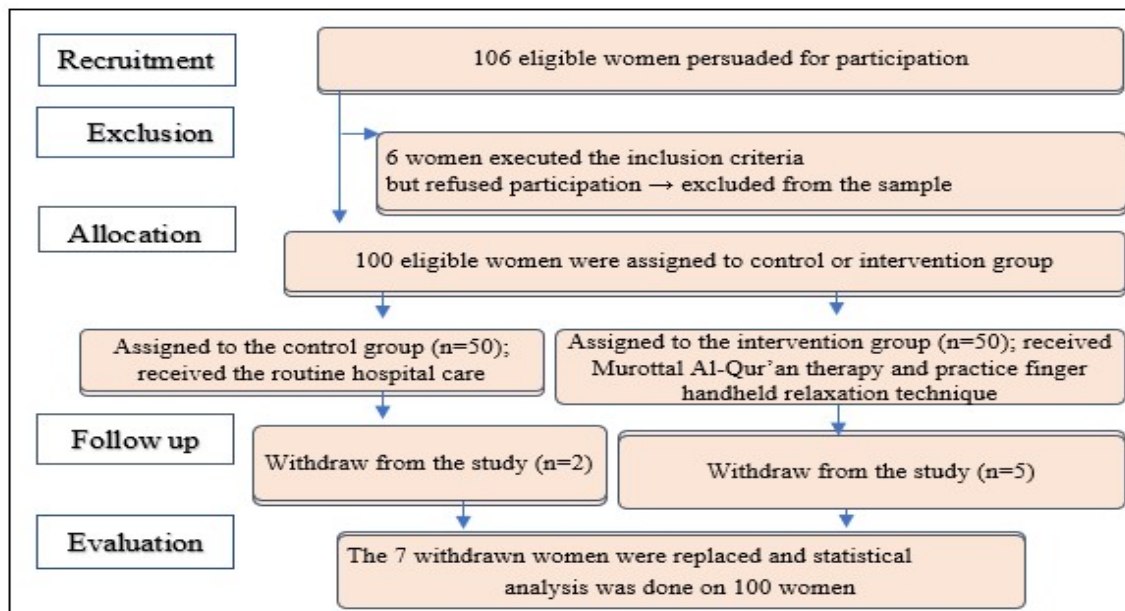
**Sample size calculation:**

The sample size was calculated using ClinCalc.com/ calculating sample size using percentages (software) and according to the study of **Septianingrum et al., (2019)**. Where the mean of pain post-applying Murottal therapy for the intervention group was  $2.83 \pm 2.22$  vs. 4.08 in the control group with an alpha error of 5% (significant 95%), and a B error of 20% (study power of 80%). The sample size was 100 post-gynecological cancer women with 50 women for each group.

### Allocation to the groups

To enroll a total sample of 100 women, 106 eligible women were persuaded to participate in this study, 6 women refused participation. The 100 women were assigned either to the control or to the intervention group (n=50 per

group). The withdrawn women (2 in the control group and 5 in the intervention group) were replaced and the statistical analysis was done on 100 women. A consort flow diagram of the study participants is shown in **Figure (1)**:



**Figure (1):** A consort flow diagram of the study participants

### Tools:

To collect data, assessment sheet, Numeric Pain Rating Scale, and Rosenberg's Self-Esteem Scale were used:

**Tool I: Assessment sheet:** It was developed by researchers in 2 parts: part 1 included the demographic data of women such as age, occupation, education, residence, and the telephone number and part 2 included the medical profile and treatment as cancer site, duration of cancer, and treatment.

**Tool II: Numeric Pain Rating Scale (NPRS):** This scale was developed by **McCaffery & Beebe, (1989)** and was adopted in the present study to measure the current, best, and worst pain intensity levels over the past 24 hours. It is a horizontal line with 11 numbers (0-10).

### Scoring system:

Scores ranged from 0-10 points where 0 (no pain), 1-3 (mild pain), 4-6 (moderate pain), 7-9 (severe

pain), and 10 (worst pain imaginable). The higher scores indicate greater pain intensity. To represent the overall level of pain intensity, the average of the 3 ratings (1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> day) was used.

#### **Tool III: Rosenberg's Self-Esteem Scale (RSES):**

This scale was developed by **Rosenberg, (1965)** and was adopted in the present study to measure the self-esteem of women. It is a standardized resource widely known and applied in clinical and research practice (**García, Olmos, Matheu, & Carreño, 2019**). It is a short structured, self-report 10-item that was answered on a 4-point scale.

#### **Scoring system:**

Scores ranged from 0 to 30 where strongly agree = 3, agree = 2, disagree = 1, and strongly disagree = 0. Items 2, 5, 6, 8, and 9 are negative items, while 1, 3, 4, 7, and 10 are positive. The total score of self-esteem was divided according to **Oancea et al., (2020)** into:

-0 to < 15 points: Low self-esteem

-15 to < 25 points: Normal self-esteem

-25 to 30 points: High self-esteem

To represent the overall level of self-esteem, the average of the 3 ratings (1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> day) was used. The higher scores indicate higher self-esteem (**Vaupot & Železnik, 2018**).

#### **Validity of the tools:**

Validity of data collection tools was tested by three specialists in the woman's health and midwifery nursing field. No modifications were recommended.

#### **Reliability of the tools:**

The reliability of the Numeric Pain Rating Scale and Rosenberg Self-Esteem Scale has been established by **McCaffery and Beebe, (1989)**; **Rosenberg, (1965)** which were 0.96 and 0.95.

#### **Pilot study:**

It was performed on 10 women to assess the feasibility and applicability of the study tools and determine the time required for answering. No modifications were made. So, those women were included in the study sample.

#### **Ethical considerations:**

Official approval was obtained from the research ethics committee, Faculty of Nursing, Mansoura University (code No. P. 0375 on 1/2/2023) to conduct this study. After clarification of the study purpose and approach to women, informed written consent was signed. Privacy and confidentiality of women were assured. Women were told that there will be no harm in participating in the study, as well as their participation is voluntary, and they can withdraw from the study at any time.

#### **Research process:**

This study was implemented in the period from the beginning of March 2023 to the end of March 2024. Three phases were followed through this study: preparatory, implementation, and outcome evaluation.

#### **Preparatory phase**

The researchers reviewed the related literature regarding the study tools and the content of the educational

material. Official approvals from the research ethics committee of the Faculty of Nursing, Mansoura University, and the director of Mansoura University Hospitals were taken to carry out this study.

### **Implementation phase**

1. The study's aim was explained to the director of the gynecology unit and official permission was obtained to carry out the study.
2. In the morning, the researcher visited the Gynecologic Oncology unit 3 days weekly, introduced herself to the women, explained the aim of the study, and obtained their informed consent.
3. Before the intervention, the women's demographic data and medical profile were obtained using the assessment sheet. The pain level and self-esteem were assessed as baseline data using the Numeric Pain Rating Scale and Rosenberg's Self-Esteem Scale respectively.
4. The women were divided into two groups (intervention and control group). The control group received only the routine hospital care.
5. The intervention group received the routine care in combination with the Murottal Al-Quran therapy and finger handheld relaxation technique.
6. Surah Ar-Rahman (which is the most rhythm in the Holy Quran, reassures oneself, speaks about characteristics of the Holy Quran, and signifies the unity and power of Allah and the greatness of his graces for his creatures) was listened to by women in a relaxed position (sitting position is desirable) using the researcher's mobile phone connected to the earpieces (which disinfected by the researcher between each woman as infection control measure) at medium volume for 15 minutes once a day for 3 days.
7. The women taught by the researcher how to perform the finger handheld relaxation technique according to the following steps as in **Figure (2)**.
  - a. Assume a relaxed position, close both eyes, breathe slowly and deeply.
  - b. Touch the thumb with the index finger in an O shape while imagining that she feels healthy.
  - c. Touch the thumb with the middle finger while imagining that she feels happy.
  - d. Touch the thumb with the ring finger while imagining that she receives reward.
  - e. Touch the thumb with the little finger while remembering the best place ever visited.
  - f. In each step, hold (for 30-60 seconds) the palm straight with the fingers slightly apart and straight. The exercise can be repeated up to 4 times for each hand.
8. The women were instructed to perform the technique (at the time of pain) for 15 minutes twice daily for 3 days, document its frequency and duration.
9. An Arabic brochure and videos covering finger handheld relaxation technique were used as educational materials.



### Outcome evaluation phase

The pain level and self-esteem were reassessed on the first, second- and third-day post-operative using the same previous tools for both the intervention and control groups.



**Figure (2):** Finger handheld relaxation technique

Adopted from **Davis et al., (2008)**. The Relaxation and Stress Reduction Workbook, 6th Edition. Oakland, CA. New Harbinger.

### Statistical analysis:

**"IBM SPSS Statistics Version 23 for Windows Package Program"** was used to analyze the study's data. Numbers and percentages were used to represent categorical data. Mean  $\pm$  SD was used to explain numerical data. To compare between the studied groups, ( $X^2$ ) test was used for categorical data, and the t- test for numerical data. The reliability of the tools was tested using Pearson Correlation (test-retest). According to **Infanger and Schmidt-Trucksäss, (2019)**, p-value = 0.05 was used to determine significance differences.

### Results

**Table (1):** Shows 46% of the studied groups aged 47 years and more in both the intervention and control groups. In terms of educational

level, 40% of women in the intervention group can read and write compared to 34% of the control group. The table also, identifies that 82% and 88% respectively of women in the intervention and control groups are housewives, 72% of women in the intervention group were from rural areas compared to 66% of the control group. Finally, there were no statistically significant differences between the two groups ( $p > 0.05$ ). Which revealed the homogeneity of the studied groups.

**Table (2):** Explains that uterine cancer was found in 50% of the intervention group compared to 60% in the control group, 54 % of women in the intervention group diagnosed with cancer for 1 year compared to 46% in the control group, 46% of the intervention group underwent surgery to treat their cancer versus 40% in the control group. However, there were no significant differences between both groups in terms of medical profile and treatment ( $p > 0.05$ ).

**Table (3):** Summarizes that the mean and SD of pain on the 1<sup>st</sup> day postoperative gynecological surgery for the intervention group was  $8.44 \pm 1.39$  compared to  $8.78 \pm 0.95$  in the control group, while on the 3<sup>rd</sup> day, it was  $1.88 \pm 1.29$  versus  $5.18 \pm 1.32$  for the control group. A highly significant reduction of pain was found on the 2<sup>nd</sup> and 3<sup>rd</sup> day post.

**Figure (3):** Reveals that 16% of the intervention group had no pain compared to 0.0 % in the control group. Furthermore, 74% of the

intervention group complain of mild pain compared to 10% of the control group.

**Table (4):** Clarifies that the mean and SD for the intervention group regarding self-esteem on 1<sup>st</sup> day post-gynecological surgery was  $6.08 \pm 4.46$  compared to  $6.22 \pm 4.58$  for the control group without statistical differences between both groups ( $p > 0.05$ ).

**Table (5):** Demonstrates that the mean and SD for the intervention group regarding self-esteem on the 2<sup>nd</sup> day post-gynecological surgery was  $15.14 \pm 2.07$  compared to  $9.82 \pm 4.81$  for the control group, with a significant statistical difference in self-esteem in favor of the intervention group ( $p = 0.001$ ).

**Table (6):** Points the mean and standard deviation for the intervention group regarding self-esteem on the 3<sup>rd</sup> day post-gynecological surgery was  $22.24 \pm 3.67$  compared to  $13.54 \pm 5.99$  for the control group. Highly statistically significant differences were found in all items of self-esteem in favor of the intervention group ( $p = 0.001$ ).

**Figure (4):** Highlights that 74% of the intervention group had normal self-esteem on the third day post-gynecological surgery compared to only 6% of the control group. Else 26% of the intervention group had high self-esteem versus 12% of the control group.

**Table (1): Distribution of the studied groups related to their demographic data (N= 100)**

Demographic data	Intervention group (n=50)		Control group (n=50)		X <sup>2</sup>	P value
	No.	%	No.	%		
<b>Age (yrs)</b>						
21- < 39	16	32	12	24	1.19	0.55
39- < 47	11	22	15	30		
47 and more	23	46	23	46		
Mean ±SD	46.66 ± 13.39		49.54 ± 14.03		t= 1.05	0.30
<b>Educational level</b>						
Can't read and write	6	12	7	14	1.16	0.89
Read and write	20	40	17	34		
Primary	10	20	14	28		
Secondary	9	18	8	16		
Higher	5	10	4	8		
<b>Occupation</b>						
Working	9	18	6	12	0.71	0.40
Housewife	41	82	44	88		
<b>Residence</b>						
Urban	14	28	17	34	0.42	0.52
Rural	36	72	33	66		

X<sup>2</sup>: chi-square test, t: Student t- test.

**Table (2): Medical profile and treatment between the intervention and the control group (N=100)**

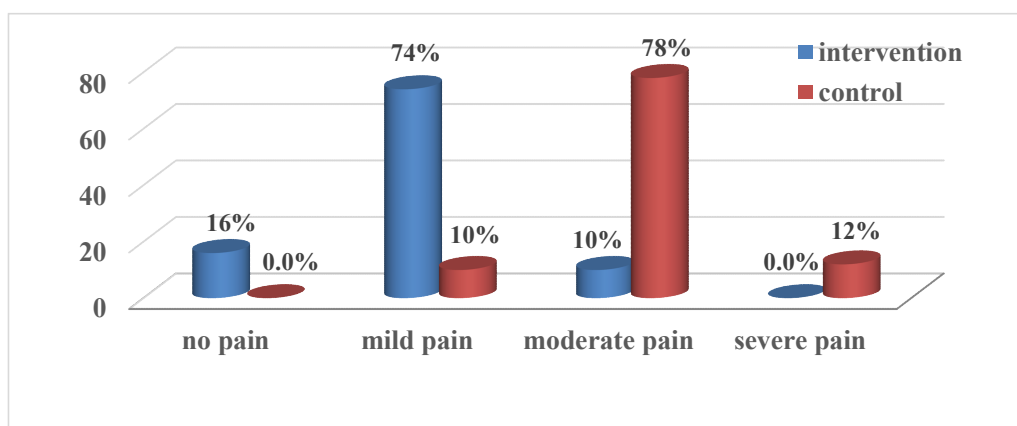
Medical profile & Treatment	Intervention group (n=50)		Control group (n=50)		X <sup>2</sup>	P-value
	No.	%	No.	%		
<b>Cancer site</b>						
Cervix	10	20	8	16	1.01	0.60
Ovaries	15	30	12	24		
Uterus	25	50	30	60		
<b>Duration of cancer</b>						
< 1 year	27	54	23	46	0.82	0.66
1-5 yrs.	19	38	21	42		
> 5 yrs	4	8	6	12		
<b>Treatment</b>						
Surgery	23	46	20	40	1.22	0.87
Chemotherapy & radiotherapy	10	20	13	26		
Surgery & chemotherapy	10	20	8	16		
Surgery & radiotherapy	4	8	6	12		
Surgery, chemotherapy & radiotherapy	3	6	3	6		

X<sup>2</sup>: chi-square test.

**Table (3): Mean differences of pain between the studied groups on the 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> day post-operative gynecological surgery**

Intensity of pain	Intervention group (n=50)	Control group (n=50)	t- test	P-value
	Mean ±SD	Mean ± SD		
1 <sup>st</sup> day postoperative	8.44 ± 1.39	8.78 ± 0.95	1.43	0.16
2 <sup>nd</sup> day postoperative	5.92 ± 1.21	7.68 ± 0.98	8.001	0.001**
3 <sup>rd</sup> day postoperative	1.88 ± 1.29	5.18 ± 1.32	12.65	0.001**

\*\*Highly Statistical Significance at a (P-value ≤ 0.001).



**Figure (3):** Distribution of the studied groups according to levels of pain on the third day post-operative gynecological surgery.

**Table (4):** Mean differences of self-esteem between the studied groups on the 1<sup>st</sup> day post-operative gynecological surgery (N= 100)

Items	Intervention group (n=50)	Control group (n=50)	t- test	P value
	Mean ± SD	Mean ± SD		
1- Overall, satisfaction with the self.	0.60 ± 0.49	0.62 ± 0.49±	0.20	0.84
2- Not good at all.	0.70 ± 0.61	0.74 ± 0.60	0.33	0.74
3- Feeling of good qualities.	0.52 ± 0.50	0.56 ± 0.50	0.40	0.69
4- Ability to do things as well as most other people.	0.58± 0.49	0.54 ± 0.50	0.40	0.69
5- Feeling of proud.	0.64 ± 0.56	0.68 ± 0.55	0.36	0.72
6- Feeling useless at times.	0.56 ± 0.50	0.52 ± 0.50	0.40	0.69
7- Feeling of worth.	0.76 ± 0.59	0.80 ± 0.61	0.33	0.74
8- Having more respect for the self.	0.54 ± 0.50	0.50 ± 0.51	0.40	0.69
9- All in all, feeling of failure.	0.62 ± 0.49	0.60 ± 0.49	0.20	0.84
10- Positive attitude toward the self.	0.56 ± 0.54	0.66 ± 0.56	0.37	0.71
<b>Total</b>	<b>6.08 ± 4.46</b>	<b>6.22 ± 4.58</b>	<b>0.16</b>	<b>0.88</b>

Statistically significant at a (P-value ≤ 0.05)

**Table (5): Mean differences of self-esteem between the studied groups on the 2<sup>nd</sup> day post-operative gynecological surgery (N= 100)**

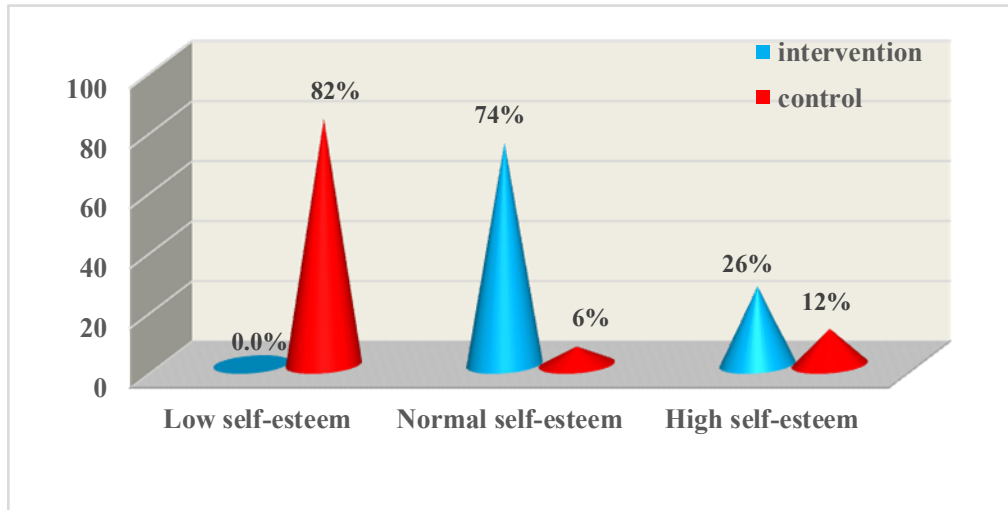
Items	Intervention group (n=50)	Control group (n=50)	t- test	P- value
	Mean ± SD	Mean ± SD		
1- Overall, satisfaction with the self.	1.40 ± 0.49	1.20± 0.40	2.21	0.03
2- Not good at all.	1.44 ± 0.50	0.92 ± 0.63	4.55	0.001**
3- Feeling of good qualities.	1.46 ± 0.50	0.86 ± 0.64	5.21	0.001**
4- Ability to do things as well as most other people.	1.50 ± 0.51	0.82 ± 0.59	6.16	0.001**
5- Feeling of proud.	1.66 ± 0.48	0.98 ± 0.62	6.13	0.001**
6- Feeling useless at times.	1.56 ± 0.50	0.88 ± 0.59	6.19	0.001**
7- Feeling of worth.	1.52 ± 0.50	1.04 ± 0.60	4.31	0.001**
8-Having more respect for the self.	1.54 ± 0.50	1.06 ± 0.47	4.93	0.001**
9-All in all, feeling of failure.	1.42 ± 0.49	0.96 ± 0.57	4.30	0.001**
10-Positive attitude toward the self.	1.64 ± 0.48	1.10 ± 0.51	5.45	0.001**
<b>Total</b>	<b>15.14 ± 2.07</b>	<b>9.82 ± 4.81</b>	<b>7.19</b>	<b>0.001**</b>

\*\*Highly Statistical Significance at a (P-value ≤ 0.001).

**Table (6): Mean differences between the studied groups regarding self-esteem on the 3<sup>rd</sup> day post-operative gynecological surgery (N= 100)**

Items	Intervention group (n=50)	Control group (n=50)	t- test	P value
	Mean ± SD	Mean ± SD		
1- Overall, satisfaction with the self.	2.16 ± 0.77	1.40± 0.81	4.83	0.001**
2- Not good at all.	2.30 ± 0.79	1.32± 0.74	6.40	0.001**
3- Feeling of good qualities.	2.22 ± 0.86	1.26± 0.72	6.03	0.001**
4- Ability to do things as well as most other people.	2.14 ± 0.83	1.30 ± 0.65	5.63	0.001**
5- Feeling of proud.	2.28 ± 0.81	1.36 ± 0.72	6	0.001**
6- Feeling useless at times.	2.20 ± 0.86	1.44 ± 0.67	4.93	0.001**
7- Feeling of worth.	2.24 ± 0.69	1.38 ± 0.78	5.85	0.001**
8- Having more respect for the self.	2.14 ± 0.83	1.46 ± 0.73	4.33	0.001**
9- All in all, feeling of failure.	2.18 ± 0.80	1.28± 0.70	5.98	0.001**
10-Positive attitude toward the self.	2.38 ± 0.78	1.34± 0.75	6.82	0.001**
<b>Total</b>	<b>22.24 ± 3.67</b>	<b>13.54 ± 5.99</b>	<b>8.76</b>	<b>0.001**</b>

\*\*Highly Statistical Significance at a (P-value ≤ 0.001)



**Figure (4): Frequency distribution regarding levels of self- esteem on the third day post-operative gynecological surgery for the intervention and the control group (N=100).**

## Discussion

The present study aimed to evaluate the effect of Murottal Al-Qur'an therapy and finger handheld relaxation technique on postoperative pain and self-esteem among women with gynecological cancers. The findings of this study reported that there was a highly statistically significant decrease in pain and an increase in self-esteem on the 2<sup>nd</sup> and 3<sup>rd</sup> day post-gynecological surgery in the intervention group compared to the control group. Therefore, the hypothesis "women with gynecological cancers who receive Murottal Al-Qur'an therapy and practice finger handheld relaxation technique had lower postoperative pain and higher self-esteem scores than those who don't.

This can be interpreted as, the positive effect of listening to the Murottal Al-Qur'an as Allah Almighty says, the Quran promotes healing and mercy to those who believe, and it increases and wrong does nothing but loss (**Surah Al-Israa, verse: 82**, **AL Quran Alkareem**), O humanity! Indeed, there has come to you a warning from your Lord, a cure for what is in the hearts, a guide, and a mercy for the believers (**Surah Younis, verse: 57**, **AL Quran Alkareem**).

Additionally, the sound of the Qur'an can reduce the intensity of pain, encourage calmness, relaxation, and comfort, as well as ease tension. When someone listens to Murottal Al-Qur'an, they feel physiological changes, such as the loss of sadness and the development of inner peace. This also affects a more stable emotional state. As stated by **Ghiasi and Keramat (2018)**, even if someone doesn't understand the

meaning of the Qur'an, reciting it might help them become more aware of Allah. Listening to the Quran stimulates alpha waves in the brain which promotes the release of endorphins so that it can increase the stress threshold, eliminate negative emotions, and create a sensation of calm (**Saleem & Saleem, 2021**).

Chanting is included into the verses of surah Al-Rahman, and because of its low tone, steady, regular rhythm, and absence of sudden changes, it has a relaxing impact on the body (**Septianingrum et al., 2019**).

Else, **Hadith Tirmidzi number 3479 (From Abu Hurairah, Prophet Muhammad (peace be upon him) said "praying to Allah with faith will be granted, Allah will not answer prayer from a careless heart." Thus, those praying for their pain were more likely to improve positively in pain behaviors, as the more pain, the more surrendering oneself to Allah. Moreover, Narrated Abu Sa'id Al-Khudri and Abu Huraira: Prophet Mohamed (peace be upon him) said, "No fatigue, nor disease, nor sorrow, nor sadness, nor hurt, nor distress befalls a Muslim, even if it were the prick he receives from a thorn, but that Allah expiates some of his sins for that" (Sahih al-Bukhari 5641, 5642).**

This outcome was in line with study on the effects of Murottal Al-Quran Therapy on pain in women recuperating from caesarean sections carried out by **Millizia, Mardiati, and Syafridah, (2021)** at Abby Mother and Child Hospital in Lhokseumawe City, Indonesia. They revealed that after receiving Murottal Al-Qur'an therapy, none of the responders had moderate or



even severe discomfort. **Fadholi and Mustofa, (2020)** also studied how effectively Murottal Al-Qur'an therapy and virtual reality may reduce the intensity of pain in patients who had just had surgery. They demonstrated that after combining virtual reality with Murottal Al-Qur'an therapy, the intervention group's average pain level was lower than that of the control group. Additionally, **El-Sayed, Saadoon, and Saadoon, (2020)** studied the effects of Muslim primiparous women listening to the Holy Quran on the outcomes for both mothers and infants during the active phase of labor. They discovered that the Quran group experienced substantially different hemodynamic parameters, labor pain, and anxiety than the non-Quran group at the first, second, and third hours of the active phase of labor.

On the other hand, the finger handheld relaxation technique involves focused, repetitive squeezing of an object and may improve relaxation through tactile, rhythmic stimulation. This may explain the technique's effect on reducing the intensity of postoperative pain in gynecological women. By diverting their attention from their discomfort, reducing stress reactions, and triggering the parasympathetic nervous system, this exercise may help women relax and improve their ability to manage their pain. However, as it enhances warmth and permits energy to enter fingers' energy channels, holding fingers while taking a deep breath may help people feel calmer and more relaxed (**Haniyah & Novitasari, 2018**).

Furthermore, at Rumah Sakit Umum Daerah (RSUD) in Sorong Regency, Indonesia, **Ariani et al., (2020)**

investigated how finger grip relaxation can reduce the intensity of pain after cesarean surgery. They concluded that the statistical test findings, which demonstrated the impact of finger grip relaxation on changes in the patients' degrees of pain and exhaustion, guaranteed the efficacy of the intervention.

The findings of randomized controlled trial titled "Flexible buprenorphine of care for reducing opioid use in individuals with prescription opioid use disorder: An open-label, pragmatic, noninferiority randomized controlled trial" (**Jutras-Aswad et al., 2022**) also indicated that the handheld finger-grip relaxation technique was more effective in reducing pain in participants who received it as opposed to those who received a placebo.

Similarly, 100 patients were gathered by **Roberts et al., (2023)** for a randomized controlled trial study entitled "Is the future female for turtles? The sex ratios of freshwater species are predicted by climate change and wetland layout. The handheld finger-grip relaxation method was found to be effective in reducing anxiety and discomfort following surgery. **Ayed, Amin, and Elewa, (2023)** conducted another homogeneous investigation on the impact of the finger handed relaxation technique on children receiving chemotherapy in terms of weariness and pain severity. They showed that there was a substantial difference in pain levels between the two groups following chemotherapy, and that the children receiving chemotherapy in the study group experienced much less pain after the intervention.

The case study of the Finger Grip Relaxation intervention on lowering pain scale in appendicitis patients" by **Safariyah et al., (2022)** is also noteworthy. They postulated that a finger grip relaxation intervention could lessen pain in appendicitis patients and promotes relaxation based on subjective patient evaluations.

Regarding the impact of finger handed relaxation and Murottal Al-Quran on postoperative gynecological cancer patients' self-esteem. The results of this study showed that, when compared to the control group, the intervention group's self-esteem increased on the second and third days following gynecological surgery in a highly statistically significant way. This can be interpreted as Allah Almighty says; we will certainly test you with a touch of fear and famine and loss of property, life, and crops. Give good news to those who patiently endure, who say, when struck by a disaster, "Surely to Allah we belong and to Him we will 'all' return. They are the ones' who will receive Allah's mercy and blessings, and it is they who are 'rightly' guided (**Surah Al Baqara, Verses: 155-157, Al- Quran Al-Kareem**).

Also, no calamity befalls 'anyone' except by Allah's Will. And whoever has faith in Allah, He will 'rightly' guide their hearts 'through adversity'. And Allah has 'perfect' knowledge of all things (**Surah At-Taghabun, Verse: 11, Al- Quran Al-Kareem**). But whoever turns away from My Reminder will certainly have a miserable life, then we will raise them up blind on the Day of Judgment (**Surah Taha, verse: 124, Al- Quran Al-Kareem**). In addition to ALLA Almighty says in " We send

down (stage by stage) to those who believe in the Quran what is a blessing and a mercy: to the unjust it causes nothing but loss after loss (**Surah Al-Israa, verse: 82, Al-Quran AL Kareem**).

According to the results of this study, **Karimi et al., (2022)** conducted a quasi-experimental study in Iran that studied the effects of a spiritual care program based on the Holy Quran, Sahifa Sajjadih, Nahj al Balaghah, Gharr al Hakam, Dar al Kalam, and some pertinent nursing and medical palliative texts on cancer patients' self-esteem. When compared to the control group, the intervention group's self-esteem significantly improved.

Additionally, research conducted in Mashhad, Iran by **Mozhdeh et al., (2020)** studied how spiritual care based on a sound heart affected the self-esteem of children with cancer. The findings demonstrated that in comparison to the control group, the intervention group's self-esteem considerably increased following treatment.

The results of **Shariatmadar and Amini, (2018)** about the effectiveness of religious education on primary school students' self-esteem revealed that spirituality-based instruction significantly influenced the development of several aspects of participants' self-esteem.

In line with the results of this study, a study by **Coelho, Mendes, Varajidás and Fonseca, (2024)** titled "Impact of physical exercise on quality of life, self-esteem, and depression in breast cancer survivors" found that the intervention group's self-esteem and depression scores differed statistically significantly

from the cancer survivors' post-exercise scores. According to similar research by **Tan et al., (2022)** on the effect of progressive muscle relaxation on health-related outcomes in cancer patients, self-esteem also increased in the intervention group as compared to the control group.

A randomized clinical trial titled "Effects of relaxation on self-esteem of patients with cancer" was carried out by **Harorani et al., (2020)**. They concluded that the experimental group's self-esteem levels considerably improved following the intervention, demonstrating the beneficial impact of relaxation. Additionally, a substantial difference favoring the relaxation group was noted across the groups following the intervention. Additionally, **Avazeh et al., (2015)** investigated how patients with myocardial infarction felt about themselves after using the progressive muscle relaxation approach. After eight weeks of intervention, they showed a substantial difference between the relaxation group's and the control group's levels of self-esteem.

Finally, the autonomic nerves can be balanced to induce relaxation with the use of finger handheld relaxation and Murottal Al-Qur'an therapy. To improve results, promote patient safety, and decrease the likelihood of complications or a worsening of preexisting diseases, it is crucial to use these noninvasive methods to alleviate pain, anxiety, and boost self-esteem after surgery.

### **Conclusion**

The current study findings concluded that Murottal Al-Qur'an therapy and finger handheld relaxation technique were effective methods for relieving

postoperative pain and increasing self-esteem among women with gynecological cancers.

### **Recommendations**

#### **Findings of the present study incite the following recommendations:**

- Educating women with gynecological cancers about the advantages of Murottal Al-Qur'an therapy and finger handheld relaxation technique in lowering postoperative pain and boosting self-esteem.
  - Treatment of women with gynecological cancers should incorporate Murottal Al-Qur'an therapy and finger handled relaxation techniques to reduce the severity of pain and enhance self-esteem.
  - Gynecological cancer women should understand Murottal Al-Qur'an therapy and finger handheld relaxation technique as applicable strategies to improve their health.
  - Including Murottal Al-Qur'an therapy and handheld relaxation techniques as non-pharmacological strategies to lessen other postoperative gynecological cancer problems.
- Further studies
- Replication of the current study at more settings with a large sample size.
  - Conducting in-service training programs for nurses and other healthcare providers regarding applying handheld relaxation technique and Murottal Al-Qur'an therapy for reducing pain intensity and promoting self-esteem among cancer women.

## References

- Al- Quran Al-Kareem** translated into English at <http://search-the-quran.com/search> retrieved on 8 October/ 2024.
- Aquil, A., E. L., Kherchi, O., E. L., Azmaoui, N., Mouallif, M., Guerroumi, M., Chokri, A., Elgot, A. (2021).** Body image dissatisfaction and lower self-esteem as major predictors of poor sleep quality in gynecological cancer patients after surgery: A cross-sectional study. *BMC Women's Health*, 21(1), 1-11. <https://doi.org/10.1186/S12905-021-01375-5/TABLES/6>.
- Ariani P., Adriana E., Rizqi K., & Anwar, M. (2020).** Effectiveness of Finger Held Relaxation on the decrease in intensity of pain in patient of Post-Sectio Caesarea in RSUD Sorong Regency. *Sys Rev Pharm; 11(9):953-956*.
- Avazeh, A., Jahanpour, F., Mehrpoor, G., Hajiesmaeili, M. R., Vahedianazimi A., Naderi A., et al. (2015).** Effect of progressive muscle relaxation technique on the self-esteem of myocardial infarction patients: A randomized controlled clinical trial study. *NJV 2(3): 69–78*.
- Ayed, A. M. M., Amin, M. F., Elewa, A. A. (2023).** Effectiveness of applying Finger Handheld Relaxation technique on pain intensity and fatigue among children undergoing chemotherapy. *Egyptian Journal of Health Care, (EJHC) 14(3)*. 117-126.
- Calisanie, N. N. P., & Ratnasari, A. N. (2021).** The Effectiveness of the Finger Grip Relaxation Technique to Reduce Pain Intensity in Post-Appendectomy Patients: A Literature Review. *KnE Life Sciences, 753-757*. <https://doi.org/10.18502/cls.v6i1.8751>
- Centers for Disease Control and Prevention. (2022).** How Are Gynecologic Cancers Treated? *Repéré à* [https://www.cdc.gov/cancer/gynecologic/basic\\_info/treatment.htm](https://www.cdc.gov/cancer/gynecologic/basic_info/treatment.htm).
- Coelho, E., Mendes, H., Varajidás, C., and Fonseca, S. (2024).** Breast Cancer Survivors: A Pilot Study. *Onco, 4, 207–216*. <https://doi.org/10.3390/onco4030015>.
- Dahar, F. N., Chishti, U., Ali, F. A., Khan, R. S., Ali, N., Raza, A., & Aziz, A. B. (2024).** Quality of Life in Women with Gynecological Cancers: A Study in Tertiary Care Hospital of Pakistan. *Asian Pacific Journal of Cancer Care, 9(4)*, 643-650.
- Davis, M., Eshelman, E. R. & McKay, M. (2008).** The Relaxation & Stress Reduction Workbook, 6th Edition. Oakland, CA. New Harbinger
- Elnosary, A. M. A., Mostafa, H. A. A., Tantawy, N., Hani, S. B., ALBashtawy, M., Ayed, A., & Fathalla Mostafa, M. (2024).** Effect of Handheld Finger-Grip Relaxation Technique on Post-Neurosurgery Patients' Pain and Anxiety. *SAGE Open Nursing, 10, 23779608241290674*.
- Elkenawi, K., Hemida, R. A. E., Wahba, H. A., & Mohamed, A. A. (2024).** Outcome of

- Gynecological Cancers at Mansoura University Hospital: A prospective Study. *Evidence Based Women's Health Journal*, 14(4), 412-418.
- El-Sayed, H. El. S. M., Saadoon, Om. M. M., Saadoon, M., M., M. (2020).** Effect of Listening to Holy Quran on Maternal and Neonatal Outcomes among Muslim Primiparous during the Active Phase of Labor. *International Journal of Novel Research in Healthcare and Nursing*, 7(2),115-126. Available at: [www.noveltyjournals.com](http://www.noveltyjournals.com).
- Emara, H. A. E., Abel Kader, A. I., & Ahmed, E. A. G. (2022).** Effect of Finger Handheld Relaxation Technique on Incisional Pain Intensity among Post Caesarean Women. *Assiut Scientific Nursing Journal*, 10 (33), 216-229.
- Fadhali, K., Mustofa, A. (2020).** The effectiveness of Murottal Al-Qur'an therapy and virtual reality to reduce pain intensity in post operating patients. *South East Asia Nursing Research*, 2 (2), 74-81
- Ferlay, J., Colombet, M., Soerjomataram, I., Parkin, D. M., Piñeros, M., Znaor, A., & Bray, F. (2021).** Cancer statistics for the year 2020: An overview. *International journal of cancer*, 149(4), 778-789.
- García, J. A. y., Olmos, F. C., Matheu, M. L., & Carreño, T. P. (2019).** Self-esteem levels vs global scores on the Rosenberg self-esteem scale. *Heliyon*, 5(3), e01378.
- Ghiasi A, Keramat A. (2018).** The effect of listening to Holy Quran recitation on anxiety: a systematic review. *Iran J Nurs Midwifery Res.*; 23:411---20
- Handoyo, & Hartati. (2021).** The Effect of Finger Hold Relaxation Techniques on Mean Arterial Pressure (Map) In Hypertension Patients. *NVEO Journal*, 8(5), 3844-3851. Repéré à <https://www.nveo.org/index.php/journal/article/view/1139/1031>.
- Haniyah, S., & Novitasari, D. (2018).** Categories of Dysmenorrhea Pain in Female Students at Al-Amin Islamic Boarding School. *Viva Med J Health, Midwifery and Nursing*;11(2):40–2.
- Haniyah, S., & Adriani, P. (2020).** Effectiveness of the Finger Handheld Relaxation and the Self-Tapping Relaxation Technique on Dysmenorrhea Pain in Nursing Students, 97-101. <https://doi.org/10.2991/ahsr.k.200204.023>.
- Harorani, M. & Zamenjani, N. M. & Golitaleb, M. & Davodabady, F. & Zahedi, S. & Jadidi, A. & Rezaei, M. (2020).** Effects of relaxation on self-esteem of patients with cancer: a randomized clinical trial. *Supportive Care in Cancer*; 28:405–411. <https://doi.org/10.1007/s00520-019-05025-3>
- Healy, M. (2024).** About Gynecologic Cancer and Pelvic Pain. <https://www.oncolink.org/cancers/gynecologic/support-and-survivorship/about-gynecologic-cancer-and-pelvic-pain>.
- Infanger, D., & Schmidt-Trucksäss, A. (2019):** P value functions: An underused method to present

- research results and to promote quantitative reasoning. *Statistics in medicine*, 38(21), 4189–4197. <https://doi.org/10.1002/sim.8293>.
- Jutras-Aswad, D., Le Foll, B., Ahamad, K., Lim, R., Bruneau, J., Fischer, B., & Brissette, S. (2022).** Flexible buprenorphine/naloxone model of care for reducing opioid use in individuals with prescription-type opioid use disorder: An open-label, pragmatic, noninferiority randomized controlled trial. *American Journal of Psychiatry*, 179(10), 726–739. <https://doi.org/10.1176/appi.ajp.21090964>.
- Karimi, R., Mousavizadeh, R., Mohammadirizi, S., Bahrami, M. (2022).** The effect of a spiritual care program on the self-esteem of patients with cancer: A quasi-experimental study. *Iran J Nurs Midwifery Res*; 27:71-4.
- McCaffery, M., & Beebe, A. (1989).** *Pain: Clinical manual for nursing practice*. Mosby St. Louis, MO.
- Milad, A., Zain, M., Said, N., & Ab Rahman, Z. (2022).** Reciting the AL Quran in Restoring the economy, self-esteem and religiosity among husband and wife. *Journal of Pharmaceutical Negative Results*, 13(6), 2358-2364. <https://doi.org/10.47750/pnr.2022.13.S06.307>.
- Millizia, A., Mardiati, Syafridah A. (2021).** The effect of Murottal Al-Quran Therapy on Pain in post cesarean surgery patients at Abby Mother and Child Hospital, Lhokseumawe City. *ARKUS*. 8(1). 198- 202.
- Mozhdeh, V. N., Mahboubeh, T., Neda S., Atoosa T., (2020).** The Effect of Spiritual Care based on Sound Heart on self-esteem of Children with Cancer in Mashhad. *P J M H S* 14, (3), JUL – SEP. 1269-1273
- Moulaei, K., Haghdooost, A. A., Bahaadinbeigy, K., & Dinari, F. (2023).** The effect of the holy Quran recitation and listening on anxiety, stress, and depression: A scoping review on outcomes. *Health Science Reports*, 6(12), e1751.
- National Cancer Institute. (2024).** Cancer pain. <https://www.cancer.gov/about-cancer/treatment/side-effects/pain/pain-pdq>.
- Nurhusna, Ekawaty, F., & Sulistiawan, A. (2020).** The Effect of Murottal Alquran Therapy on Heart Rate, Respiration Rate, Saturation Oxygen of Premature Infants Using Mechanical Ventilation in the Neonatal Intensive Care Unit, 25(Sicph 2019), 353-361. <https://doi.org/10.2991/ahsr.k.200612.049>
- Oancea, R., Timar, B., Papava, I., Cristina, B. A., Ilie, A. C., Dehelean, L. (2020).** Influence of depression and self-esteem on oral health-related quality of life in students. *J Int Med Res*. 48(2):300060520902615. doi:10.1177/0300060520902615
- Ohnesorge, H., Günther, V., Grünewald, M., Maass, N., & Alkatout, İ. (2020).** Postoperative

- pain management in obstetrics and gynecology. *Journal of the Turkish German Gynecological Association*, 21(4), 287.
- Priyadarshini, S., Swain, P. K., Agarwal, K., Jena, D., & Padhee, S. (2024).** Trends in gynecological cancer incidence, mortality, and survival among elderly women: *A SEER study. Aging Medicine*, 7(2), 179-188.
- Pongoh, A., Egam, A., Kamalah, R., & Mallongi, A. (2020).** Effectiveness of Finger Held Relaxation on the Decrease in Intensity of Pain in Patient of Post-Sectio Caesarea in RSUD Sorong Regency. *Systematic Reviews in Pharmacy*, 11(9), 953-956. <https://doi.org/10.31838/srp.2020.9.138>
- Purnawan, I., Hidayat, A. I., Sutrisna, E., Alivian, G. N., & Wirakhmi, I. N. (2021).** Efficacy of Listening to Murattal in Reducing the Pain Experienced by ICU Patients. *Journal Keperawatan Soedirman*, 16(3), 97-100. <https://doi.org/10.20884/1.jks.2021.16.3.1567>.
- Putri, T. A., Chairani, A., & Valentina, R. (2020).** The relationship between murottal therapy and pain quality in college students with musculoskeletal pain in 2019. *SCRIPTA SCORE Scientific Medical Journal*, 1(2), 7-7
- Roberts, H. P., Willey, L. L., Jones, M. T., Akre, T. S., King, D. I., Kleopfer, J., & deMaynadier, P. (2023).** Is the future female for turtles? Climate change and wetland configuration predict sex ratios of a freshwater species. *Global Change Biology*, 29(10), 2643–2654. <https://doi.org/10.1111/gcb.16625>.
- Rosenberg, M. (1965).** Society and adolescent self-image. Princeton University Press, 1-326. <https://doi.org/10.2307/2575639>
- Rydmark, K., & Carina, B. (2021).** Women's experiences of an enhanced recovery after surgery program: *A qualitative study. Nursing & Health Sciences*, 23(1), 263-272. <https://doi.org/10.1111/NHS.12810>
- Safariyah, E., Salsabilla, N., & Setiawan, H. (2022).** A Case Study of the Finger Grip Relaxation Intervention on Lowering Pain Scale in Appendicitis Patients. *International Journal of Nursing and Health Services (IJNHS)*, 5(5), 412-417.
- Sahih Al-Bukhari** 5641, 5642, Book 75, Hadith 2, 7, Book 70, Hadith 545. Available at <https://sunnah.com/bukhari:5641>.
- Saleem, S, Saleem, T. (2021).** Efficacy of music and quranic verses in reducing cortisol level: A stress biomarker in medical undergraduates. *Current Psychology*,; 42:6229–34. [DOI:10.1007/s12144-021-01971-6]
- Septianingrum, Y., Hatmanti, N. M., Fitriasari, A. (2019).** The Effect of Murottal Qur'an on Menstrual Pain in Nursing Students of Nahdlatul Ulama University

- Surabaya. *Nurse Heal J Nursing*;8(1):8–15.
- Shariatmadar, A., & Amini, A. (2018).** The Effectiveness of Teaching Religious Concepts on Self-Esteem of Elementary School Students. *Journal of Research in Educational Systems*, 12(41), 151-164. doi: 10.22034/jiera.2018.64744
- Singh, S., Singh, A. P., Chouhan, A., & Patidar, A. (2022).** Prevalence of operative complications in obstetric and gynecological surgeries requiring interventions by a general surgeon and their associated risk factors: A retrospective study in a tertiary care hospital in Vindhya region. *Asian Journal of Medical Sciences*, 13(9), 178-182. <https://doi.org/10.3126/ajms.v13i9.44060>
- Somasegar, S., Anastasio, M. K., Karam, A., Rossi, E. C., & Obermair, A. (2024).** Controversies in the Surgical Management of Gynecologic Cancer: Balancing the Decision to Operate or Hesitate. *American Society of Clinical Oncology Educational Book*, 44(3), e438550.
- Tan, L., Fang, P., Cui, J., Yu, H., Yu, L. (2022).** Effects of progressive muscle relaxation on health-related outcomes in cancer patients: A systematic review and meta-analysis of randomized controlled trials. *Complement Ther Clin Pract*; 49:101676. doi: 10.1016/j.ctcp.2022.101676. Epub 2022 Oct 31. PMID: 36332326.
- The Muslim Life Coach Institute. (2022).** How to build self-esteem and Confidence Islamically Repéré à <https://www.quranicconnection.tv/self-esteem-and-confidence/>
- Vaupot, S. R., & Železnik, D. (2018).** Communicative factors associated with assertiveness in Slovenian nursing staff in clinical practice. *Informatologia*, 51(3/4), 149-158.
- Wahyuningsih, I. S., Sukartini, T., Dewi, Y. S., Amal, A. I., & Kisman, M. L. (2024).** The effect of murottal auditory therapy on anxiety and comfort levels in patients with cardiovascular disease. *Healthcare in Low-resource Settings*, 12(1).
- Wu, W., He, X., Li, S., Jin, M., & Ni, Y. (2023).** Pain nursing for gynecologic cancer patients. *Frontiers in Oncology*, 13, 1205553.
- Yunita, Y., Idhayanti, R. I., & Tunggadewi, C. H. (2022).** Finger Hold Guided Imagery Relaxation Techniques Can Reduce Dysmenorrhoea. *Midwifery and Nursing Research*, 4(1), 28-35.