Effect of Implementing Acupressure on Pain among Breast Cancer Patients

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ABSTRACT

Background: Breast cancer is the most common invasive cancer in women, and the second main cause of cancer death among them, after lung cancer. Cancer -related pain often co-occurs with insomnia. **Aim of study**: Explore the effect of implemented acupressure on pain among breast cancer patients. **Subjects and Method : Design:** A quasi-experimental research design was used in this study. **Setting:** The study was conducted in Oncology Department at Mansoura University Hospitals. Subjects: A purposive sample of 60 adult female patients with breast cancer. **Tool of data collection:** The data collected through the following tools: Structured interview, Pain assessment tool and Numeric rating Scale of pain. **The results**: The study revealed that after implementing of acupressure, there was decreased in pain for study sample (t-test=5.34*) rather than the control sample. **Conclusion:** This study concluded that, implementing of acupressure have positive affect on reducing pain among breast cancer patients. **Recommendations:** Encourage oncology hospitals to apply acupressure as a treatment line to manage pain for breast cancer patients. Also, further researches are needed with large sample size for generalization of the results.

Keywords: Acupressure, Breast cancer, pain

INTRODUCTION

In the United States and the remainder of the world, breast cancer is still the second most prevalent disease overall and the most common cancer in women. According to the most recent data in 2021, there were 2.1 million new cases of breast cancer in 2020 and 684,996 deaths as a result of the disease (Siegel et al., 2021). The number of surgeries performed today for cancer treatment is predicted to rise, from 9,065,000 in 2018 to more than 13,821,000 in 2040, as a result of the growing popularity of these procedures. Both partial (lumpectomy) and complete (mastectomy) breast cancer surgery is done (Perera et al 2021).

Pain is a painful cancer symptom that lowers quality of life. As a result, it is crucial that these patients' pain is managed. For effective pain management, a variety of scientifically supported pharmacological and non-pharmacological techniques are employed. Pain is frequently treated with analgesics. It has, however, been linked to several extremely negative adverse effects. Consequently, there is a tremendous demand for efficient alternative therapies that are free of adverse effects (Serçe, Ovayolu, Pirbudak, and Ovayolu, 2018).

Acupressure is a technique that uses physical pressure on various body surfaces to promote the flow and balance of energy throughout the body when the recipient is in pain. The technique of acupressure, which has its roots in ancient Chinese medicine, is painless, simple to use, safe, effective, and inexpensive. Similar to acupuncture, it is administered to the body's energy meridians, particularly those in the fingers and palms, is risk-free, simple to learn how to use, and, with the right training, may even be used by patients themselves (Israel et al. ., 2021).

Endorphins, which are neurochemicals that reduce pain, are released when acupuncture points are stimulated with pressure. As a result, the affected area receives more blood and oxygen and the pain is reduced. This eases tension in the muscles and aids in recovery. Acupressure has been referred to as closing the "gate" to the pain-signaling system, preventing pain sensations from being sent down the spinal cord to the brain, because it inhibits pain signals from being conveyed to the brain by gentle, relatively painless stimulation. Acupressure can assist the body regain equilibrium in addition to reducing pain by releasing tension and stress that impair the body's ability to operate and inhibit

the immune system. The body can respond to environmental changes and ward off sickness via acupressure (Oldenmenger, Geerling & Mostovaya, 2018).

Significance of the study:

In fact, cancer-related pain often co-occurs with fatigue and insomnia, which together constitute one of the most common symptom clusters among breast cancer patients and cancer survivors across various malignancies. The high prevalence and unresolved symptoms for cancer patients indicate a better symptom management is needed. The prevalence of cancer pain is still estimated to range from 29% to 85% for patients undergoing active cancer treatment and 66% to 85% for those with advanced cancer. Since non-pharmacological/complementary pain treatments are thought to be relatively free of side effects, there is a need for greater understanding of non-pharmaceutical treatments as well as more effective and widely available non-pharmaceutical therapy delivery (Clark, Bauer, Vitek & Cutshall, 2019).

AIM OF THE STUDY:

The aim of this study is to explore the effect of implemented acupressure on pain management among breast cancer patients. This aim was achieved through:

1. Assess level of pain (pre – post) acupressure among breast cancer patients.
2. Implement acupressure with breast cancer patients.
3. Evaluate the effect of implemented acupressure on pain among breast cancer patients.

Research hypothesis :

Patients in the study group who underwent acupressure exhibit less pain than those in the control group (control group).

SUBJECTS AND METHOD:

A. Technical design:

A quasi-experimental research design was used in this study (control and study group).

Study setting:

The study was conducted at Oncology Department in Mansoura University Hospitals, Egypt. The setting is considered representative for breast cancer patients. It

contains five floors, the ground floor radiation sessions and pain clinic, the first and second floors for X-Ray and CT scans, the fourth floor for giving lectures, the fifth floor is nuclear medicine department**.**

Study sample:

A purposive sample of 60 adult female patients will be selected randomly and assigned to two equal group؛ 30 subjects in study group who will receive acupressure and 30 subjects in control group who will receive routine hospital care for pain management. patients who met sampling criteria recruited for this study was calculated by statistical equation; using EPI info program version 6.02 after taking into consideration the clinical incidence of 33.3 breast cancer patients from the hospital record with the study power 80%, confidence interval of 95% and relative precision 15 %, it is divided into 30 subjects in the study group and 30 subjects in control group (Ibrahim et al., 2020)

Inclusion criteria:

- Adult female with breast cancer aged from 21 to 60 years old.
- Adult female after mastectomy with grade I, II, III cancer
- Consciously, and able to communicate.
- Free from other causes of pain.
- Complained from mild to moderate pain (Numeric rating Scale of pain).

Exclusion criteria:

- Suffering from severe visual or hearing disorders
- Suffering from skin disorder (such as rash and ulcer on acupressure points)

Tools of the study:

Data were collected as follow:

TOOL (I): Structured interview: It was developed by the researcher after reviewing of recent related literature **(**Miller, Patel, Symanowski, Edelen & Walsh, 2019) ; (Mills ,Nicolson & Smith, 2019) . It was included two parts as the following:

Part 1: Demographic Data, wa**s** compromised of five questions about patients' demographic data as age, sex, level of education, employment, and marital status.

Part 2: Patients' medical history, was compromised of six questions about patients' past and present medical history such as date of admission, length of hospital stays, chief

complaint, previous treatment, current treatment, and family medical history for breast cancer.

Tool (II): Pain assessment:

It was developed by the researcher after reviewing of recent related literature (Pain scale: What it is and how to use it: Health line. 2017; Pain scale Joint Commission on Accreditation of Healthcare Organizations and the National Pharmaceutical Council, 2018). It was included three parts

Part 1: Characteristics of pain, was included seven questions related to patient's location, radiated area, quality, factors aggravating and alleviating, duration, pain effect, and drugs used to relieve pain.

Part 2: Behavioral signs of patients regard pain effect, was included two questions related to facial expressions: verbal behaviors, and non-verbal behaviors regarding pain effect.

Tool (III): Numeric rating Scale of pain:

It was an adopted scale from (National institutes of health, 2003) that provides a simple way to record subjective estimates of pain intensity. The measurements were from zero to ten to rate the patient's intensity level of pain.

Scoring system

1- A score of	0	Means	:	No pain
2- A score of	1-3	Means	:	mild pain
3- A score of	4-6	Means	:	moderate pain
4- A score of	7-10	Means	:	severe pain

B. Operational design:

It was entailed under the following 4 points:

1- Preparatory phase

2- Content validity and reliability of the tool and pilot study

3 -Field work description

1-Preparatory Phase:

A review of the past and current related literature covering various aspects of the problem using all official websites as PubMed, google scholar, available scientific books, articles, periodicals and magazines to get acquainted with the research problem.

(A) Validity : The tool was tested for its content validity, comprehensiveness and applicability by 9 expertise in medical - surgical from Faculty of Nursing, Port Said and Mansoura University, and from Faculty of medicine, Mansoura University and modifications were done according to their opinion.

(B) Reliability: It was done using split half methods and Cronbach alpha coefficient to assess the internal consistency of the tool. Both techniques showed high reliability of the final version of the tool. (Alpha =, 85).

Pilot study:

A pilot study was conducted on 10% **(6 patients)** of total number of breast cancer patients in Oncology Department at Mansoura University Hospitals to test whether tools of data collection were clear, understandable, and feasible. The results of the data obtained from the pilot study helped the researcher to modify the tools: items were corrected or added as needed. Accordingly, the final form was created after revisions were made. Patients who participated in the pilot study were not included in the examined main sample.

3-Field work:

The study was conducted for nine months from the beginning of March (2021) to the end of August (2021). It started by interviewing the patients, who participate in the study and met the inclusion criteria individually by the researcher at the above-mentioned setting. The study was carried out through the following phases:

1- Preparatory phase

A review of the past and current related literature covering various aspects of the problem using all official websites as PubMed, google scholar, available scientific books, articles, periodicals and magazines to get acquainted with the research problem. The researcher received training sessions in conducting acupressure technique for four months at Mersal international center , three day per week and in turn, received the training under the specialist in acupressure. Moreover, educational videos derived from an internet, was used also in training the researcher.

2- Assessment phase (for both groups)

The aim of this phase was to collect baseline data by using tool (1) for demographic data, medical history. Tool (II) and tool (III) to assess pain characteristics and its intensity. It was completed within (30-45 minutes) according to patient's level of education and understanding. This interview took about 45 minutes and considered as assessment phase. Moreover, the second & the third interview were applied at the midst and the latest day of the hospital stay to assess the effect of acupressure on pain by using tool II, III. Each interview took about (30-45 minutes). It is an important to remember that the hospital stay was determined ten days that was considered the common hospital stay for the majority of the patients so equalize the hospital stay for all patients who participate in this study to ten days. So, the first day of hospitalization was considered the first day of admission, fifth day was considered the midst day of hospitalization and the tenth day was considered the latest day of hospitalization so the patients who had less than ten days excluded but patients who extend long that the hospital stay cut off in tenth day of hospitalization.

3- Implementation phase (for study group only)

Study group who receives acupressure technique divided into 3 groups; each group contain 20 patients. Duration of technique depend on patients, experience no pain or improvement of pain degree by using (Numeric rating Scale of pain).

The research applied the acupressure technique three sessions per weeks, every session lasts for 10 minutes for each patient, and the researcher follows the principles of acupressure. As well as, a caregiver who was accompanied with the patient and who can read and write to attend the session so, the booklet that was designed by the researcher was given to each patient or his/her caregiver in the study group in the first interview.

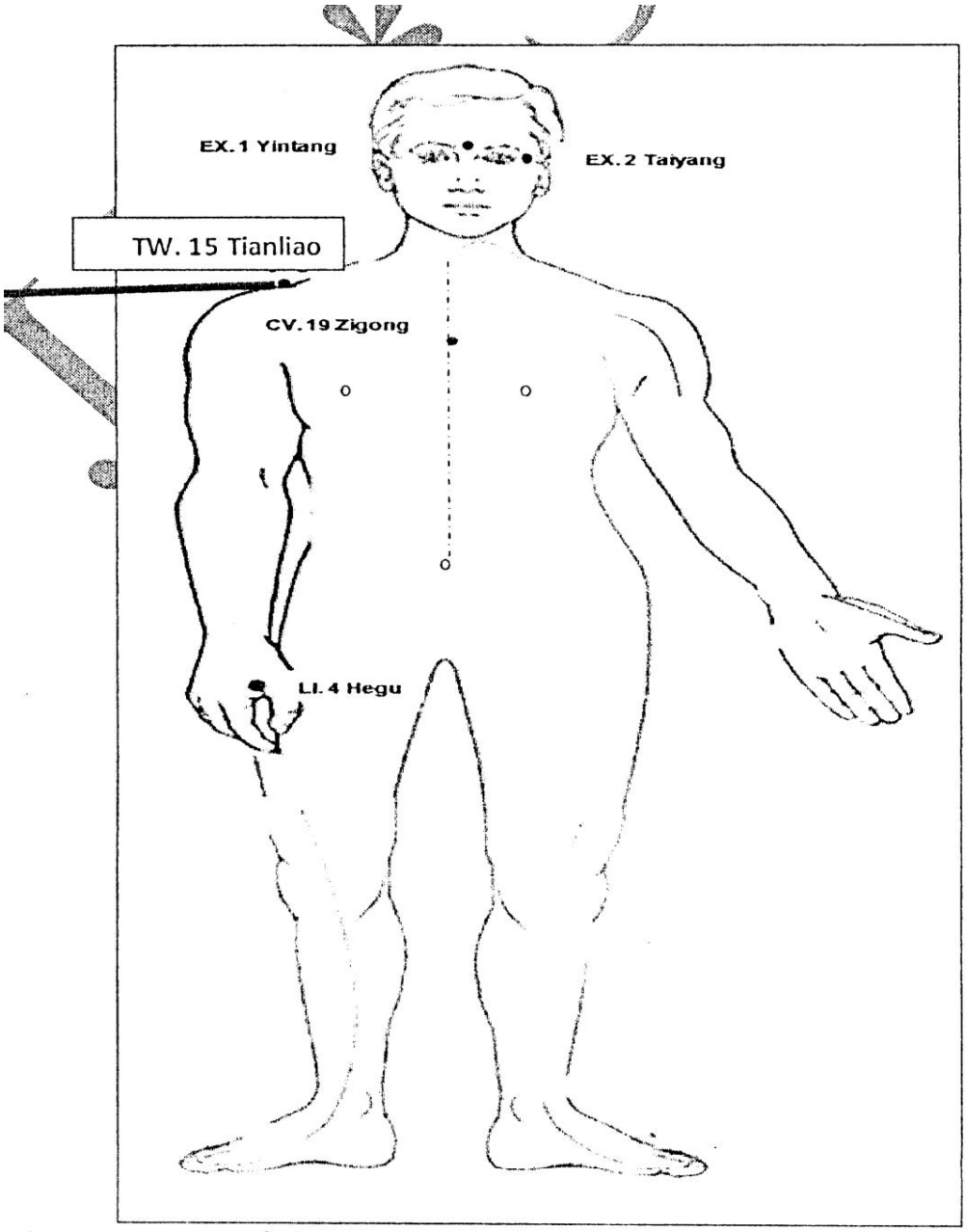
After the well preparation the patient asked to lie on bed or sitting on chair, and close her eyes and keep the eyes closed until the end of the technique. Breathing exercises was taught and asked to demonstrate from two to three times before and after the technique as possible as, to induce relaxation before the steps of the technique were started. All the time during the technique, the patient was asked to relax the muscles and calm down. The voice tone of the researcher was loud and rapid while the patient was tensing her muscles group, and low and slow while relaxing.

Regarding acupressure technique

- Acupuncture points are typically more sensitive than their surrounds;
- use deep and strong pressure to notify all points;
- the reporting period indicated in the point descriptions is simply an approximation.
- Repeat each step until you become numb.
- The amount of times you can repeat active point messages is unlimited.
- You can perform as many workouts as you want each day.
- Deep pressure may temporarily harm the active site.
- Reduce the pressure to a level that hurts only slightly in this situation, and only transfer active points. Increase the pressure as soon as the initial discomfort passes.

Acupressure points for pain:

- EX.1Yintang acupoints: In between eyebrows on the midline of the nose.
- EX.2Yintang acupoints: In the large depression on the side of the head about 1 inch away from and above the end of the eye brow.
- TW. 15 Tianliao acupoint: Found on the external lower third of the scapula.
- CV.19 Zigone acupoint: Found on the midline level with the second intercostal space.
- L-14 Hegu acupoint: Is the large intestine meridian found on the dorsum of the hand between first and second metacarpal bones. In other word, it located in the middle of the 2nd metacarpal bone on radial side or is located between thumb and index finger. Generally found by sliding the finger from the joint of the index finger bones meet and pressing where most tender.
- Apply firm deep strokes of pressure in upward direction. It can be used in headaches in the front of the head, pain anywhere (Dupuis, 2010).



Acupressure points.

4- Evaluative phase (for both groups):

To evaluate the impact of acupressure on pain using Tools II and III, the second and third interviews were done on the final day of hospitalization and during the hospitalization. The developed knowledge level's mean values were then recorded.

C-Administrative design:

An official permission for data collection was obtained from Mansoura University Hospital from the hospital administrative personnel by submission of a formal letter from

the vice dean of the Faculty of Nursing at Port Said University. Meeting and discussion were held between the researcher and the nursing administrative personnel to make them aware about aims and objectives of the research, as well as, to get better cooperation during the implementation phase of the research. Also, patients 'oral consent was obtained before starting data collection.

Ethical Considerations:

An approval was taken from the University of Port Said Faculty of Nursing's research ethics committee. We will also get the hospital director's approval for participating in this research after describing the aim to him. Additionally, agreement was obtained from the participants (patients) after explaining the study's aim and the relevant data collection procedure to them so that they appreciated the value of participation. Patients are also given a concise but thorough explanation of the study and given the assurance that the data they provide will be kept private and solely utilized for research. Patients who undergo testing are advised that participation in the study is completely voluntary and that they have the freedom to end it at any moment for any reason. Additionally, all information gathered from test subjects is handled in the most confidential manner possible. Additionally, the data collecting method does not interfere with the harmony of working in the abovementioned settings.

D-Statistical design:

The collected data was organized, revised, stored, tabulated and analyzed using number and percentage distribution. Statistical analysis was done by computer using Statistical Package of Social Science program (SPSS) package version 18. Proper statistical tests were used to determine whether there was a significant statistical difference between variables of the study. Data was presented in tables and figures. When the p-value is less than 0.05, significance level values are considered, but a p-value of less than 0.05 indicates that the result is not significant.

RESULTS:

Table (1): Shows that, 63.3% and 40.0% of the study and control groups respectively at age group 45 to less than 55 years old. Regarding educational level, 43.7% and 46.7% respective were read and write. As regards occupation, 60.0% and 53.3% of the study and control groups respectively were not working and, 100% and 93.3% respectively were married. No statistically significant variance among study and control group concerning sociodemographic data.

Table (2): Shows that, there were 73.3% and 86.7% of the study and control group respectively had symptom as (pain & vomiting), no member of family had the same disease for both study & control group, had a disease from 4 to 5 years ago, there were 53.3 % and 50.0% of the study & control group respectively treated with chemotherapy and a radiotherapy after surgery. No significant differences between study and control groups regarding medical history.

Table (3): Shows that, 50% and 60% of study and control group respectively had pain when stopped analgesics in the first day of hospitalization. While in midst day of hospitalization, 26.7% of study group had no aggravating factors for pain but 50% of control group had paused of analgesics uptake considered as aggravating factor for pain. In the last day of hospitalization, 80% and 63.3% of study and control group respectively had not aggravating factor for pain. Also, it reveals that there were no statistically significant differences regarding aggravating factors for pain as presented for study V and control group except in study and control group itself at three times interval (first, midst & last) day of hospitalization.

Table (4): Illustrates that, 50% and 60% of both study and control group respectively receiving analgesics at the first day of hospitalization. Although, in midst day of hospitalization 33.3% of the study group had not practice measure to decrease pain but 50% of control group was still taking analgesics. Moreover, it reveals that 80% and 63.3%. of both study and control group respectively had not practice measure to decrease pain in the latest day of hospitalization. It also reveals that there were no statistically significant differences regarding factors decreasing pain as presented for both study and control group except statistically significant differences were existed in both study and control group itself at three times interval (first, midst & latest) day of hospitalization.

Table (5): Both the research and control groups reported feeling dull 30.3% and 33.3% of the time, respectively. Pains that were tingling and stabbing on the first day of hospitalization. 36.7% and 26.7%. In the research and control groups, respectively, 76.7% and 63.3% of patients reported pain-free days in the middle and end of hospitalization. Additionally, we demonstrate that there was no statistically significant difference in the severity of the pain experienced by the study group compared to the control group. day of enrollment.

Table (6): It shows that on the first day of admission, 56.7% and 60%, respectively, of the study and control groups, reported significant pain. While 50% of the control group experienced severe discomfort in the midst of their hospital stay, just 33.3% of the study group did not. By the final day of hospitalization, 83.3% and 63.3%, respectively, of the study and control groups had no pain. The study and control groups did not differ statistically from one another. Likewise, at each of his three admission periods, there were statistically significant differences between the study group and the control group (first, middle, and last day).

Table (7): Shows the analysis of variance of pain score in both study and control groups, there were significantly lower mean values of pain score at the midst and last day of hospitalization, the mean vales of pain score were changed from 3.55±0.11 and 4.37±1.16 to (0.43±0.62 and 1.77±0.89; and p value were < 0.001, < 0.001, and > 0.05 respectively.

Table (1): Demographic characteristics of both study and control group:

Demographic data	**Study group (n=30)**		**Control group (n=30)**		**X2 Value**	**P Value**
	No	**%**	**No**	**%**		
Age (years)						
• 20 < 35	6	20.0	5	16.7		
• 35 < 45	7	23.3	9	30.0	0.78	> 0.05
• 45 < 55	11	63.3	12	40.0		
• 55 – 60	6	20.0	4	133		
(mean ±SD)	45.63±8.77		44.37±7.93		0.59*	>0.05
Educational levels						
• Illiterate	11	36.3	10	33.3		
• Read & Write	13	43.7	14	46.7		
• Secondary	4	14.3	4	13.3	0.08	> 0.05
• University & post graduate	2	6.7	2	6.7		
Occupation						
• Working	12	40.0	14	46.7	1.07	> 0.05
• Not work	18	60.0	16	53.3		
Marital status						
• Married	30	100	28	93.3	2.07	> 0.05
• Not married	0	00.0	2	6.7		

* = t-tes

Table (2): Medical history of both study and control group.

Medical history	Study group (n=30)		Control group (n=30)		X2 Value	P Value
	No	%	No	%		
Causes of hospitalization:						
• Complete treatment	8	26.7	4	13.3	1.67	>0.05
•Presence of symptoms as (pain & vomiting)	22	73.3	26	86.7		
Hospital stays in days (mean ±SD)	10.73 ± 6.8		12.43 ± 6.4		0.94*	> 0.05
Duration of disease						
• 6 month -	6	20.0	4	13.3		
• 1 year -	5	16.7	6	20.0		
• 2 years -	3	10.0	2	6.7	2.47	> 0.05
• 3 years -	5	16.7	4	13.3		
• 4 years -	8	26.7	7	23.3		
• 5 years – More	3	10.0	7	23.3		
Family history of cancer						
• Yes	5	16.7	4	13.3	0.13	> 0.05
• NO	25	83.3	26	86.7		
Current treatment modalities:						
• Chemotherapy	0	0	0	0		
• Radiotherapy	0	0	0	0		
• Hormonal	5	16.7	4	13.3	0.54	> 0.05
• Surgery and Radiotherapy	5	16.7	5	16.7		
• Surgery and Chemotherapy	16	53.3	15	50.0		
• Surgery and Chemotherapy and Radiotherapy	4	13.3	6	20.0		

* = t-test

Table (3): Aggravating factors of pain as reported by both study and control group at three times interval (first, midst, and last) day of hospitalization

Aggravating factors of pain	Study group (n=30)		Control group (n=30)		X2 value	P value
	No	%	No	%		
first day of hospitalization:						
• Stoppage of analgesics	15	50.0	18	60		
• Physical effort	11	36.7	6	20	2.14	>0.05
• Bad psychological status	4	13.3	6	20		
• None	0	0.00	0	0.0		
Midst day of hospitalization:						
• Stoppage of analgesics	8	26.7	15	50		
• Physical effort	7	23.3	4	13.3	4.55	>0.05
• Bad psychological status	7	23.3	3	10		
• None	8	26.7	8	26.7		
Last day of hospitalization:						
• Stoppage of analgesics	1	6.7	4	13.3		
• Physical effort	2	6.7	4	13.3	2.11	>0.05
• Bad psychological status	2	6.7	3	10		
• None	24	80	19	63.3		
X^2 value	47.18		31.10			
P value	< 0.001		< 0.001			

Table (4): Factors decrease pain as reported by both study and control group at three times interval (first, midst, and last) day of hospitalization

Factors decreasing of pain	Study group (n=30)		Control group (n=30)		X2 value	P value
	No	%	No	%		
first day of hospitalization:						
• Take analgesics	15	50.0	18	60		
• Change position	7	23.3	9	30	2.80	> 0.05
• Massage of pain site	8	26.3	3	10		
• None	0	0.00	0	0.00		
Midst day of hospitalization:						
• Take analgesics	7	23.3	15	50		
• Change position	7	23.3	5	16.7	5.46	> 0.05
• Massage of pain site	6	20	2	6.7		
• None	10	33.3	8	26.7		
last day of hospitalization:						
• Take analgesics	1	3.3	3	0.00		
• Change position	3	10	5	16.7	4.52	>0.05
• Massage of pain site	2	6.7	3	10		
• None	24	80.0	19	63.3		
X^2 value	43.90		32.66			
P value	< 0.001		< 0.001			

Table (5): Quality of pain as reported by both study and control group at three times interval (first, midst, and last) day of hospitalization

Quality of pain	Study group (n=30)		Control group (n=30)		X^2 value	P value
	No	%	No	%		
first day of hospitalization:						
• Dull, achy, stabbing	9	30.0	10	33.3		
• Squeezing, cramping	9	30.0	10	33.3		
• Sharp, tightness in chest	3	10	1	3.3	1.38	>0.05
• Headache	3	10	2	6.7		
• Mixed qualities	6	20.0	7	23.3		
• None	0	0.0	0	0.0		
Midst day of hospitalization:						
• Dull, achy, stabbing	7	23.3	7	23.3		
• Squeezing, cramping	6	20	6	20		
• Sharp, tightness in chest	2	6.7	1	3.3	2.81	>0.05
• Headache	2	6.7	2	6.7		
• Mixed qualities	2	6.7	6	20		
• None	11	36.7	8	26.7		
Last day of hospitalization:						
• Dull, achy, stabbing	2	6.7	4	13.3		
• Squeezing, cramping	1	3.3	2	6.7		
• Sharp, tightness in chest	2	6.7	1	3.3	2.71	>0.05
• Headache	1	3.3	1	3.3		
• Mixed qualities	1	3.3	3	10		
• None	23	76.7	19	63.3		
X^2 value	39.76		30.15			
P value	< 0.001		< 0.001			

Table (6): Pain intensity as reported by patients of both study and control group at three times interval (first, midst, and last) day of hospitalization

Intensity of pain	**Study group (n=30)**		**Control group (n=30)**		**X^2 value**	**P value**
	No	%	**No**	%		
first day of hospitalization:						
• Severe	17	56.7	18	60		
• Moderate	13	43.7	12	40	0.07	>0.05
• Mild	0	0.0	0	0.0		
• None	0	0.0	0	0.0		
Midst day of hospitalization:						
• Severe	7	23.3	15	50		
• Moderate	8	26.7	6	20	6.08	>0.05
• Mild	5	16.7	1	3.3		
• None	10	33.3	8	26.7		
last day of hospitalization:						
• Severe	0	0.0	0	0.0		
• Moderate	2	6.7	3	10	3.29	>0.05
• Mild	3	10.0	8	26.7		
• None	25	83.3	19	63.3		
X^2 value	58.68		55.80			
P- value	<0.001		< 0.001			

Table (7): Sleep quality as presented by patients of both study and control group at three times intervals (first, midst, and last) day of hospitalization

Sleep quality	Study group (n=30	Control group (n=30)	t-test	P value
Sleep effectiveness				
• First day	6.72±2.10	6.8+2.2	0.14	>0.05
• Midst day	31.19±0.88	17.23+1.68	40.32	< 0.001
• Last day	48.9±1.65	33.1+0.71	48.18	< 0.001
Sleep disturbance				
• First day	14.10i4.18	14+2.72	0.11	>0.05
• Midst day	42.15±1.99	24.17+0.59	47.45	< 0.001
• Last day	66.19±2.95	44.93+1.64	34.50	< 0.001
Sleep supplementation				
• First day	6.10±1.90	5.9+1.77	0.42	>0.05
• Midst day	18.55±0.98	11.57+0.97	27.73	< 0.001
• Last day	26.50+0.77	20.7+0.88	27.17	<0.001
Sleep disturbance plus supplementation				
• First day	20.2+6.08	18.53+2.78 >|	1.37	>0.05
• Midst day	60.7+2.97	35.73+1.48	41.22	< 0.001
• Last day	92.69+3.72	65.63+1.38	37.35	< 0.001

DISCUSSION:

According to data from the National Cancer Institute, breast cancer (BC) is the most often diagnosed malignancy in women worldwide, accounting for between 15 and 30 percent of all new cancer cases in females in 2019. (Sigel, Miller, & Jemal, 2019; National Cancer Institute, 2020).

The findings of this study showed that there were no statistically significant differences in patient demographic data with regard to age, educational attainment, employment status, and marital status between the study and control groups. clarified. Most members of the research and control groups were between the ages of 45 and less than 55. Less than half of the study and control groups were literate in terms of

educational attainment. Most participants in the study and control groups were married and without a job.

The results of the study indicated that the majority of participants in both the study and control groups had symptoms like pain and vomiting, and that half of the sample had undergone chemotherapy and radiation therapy following surgery. rice paddies Such outcomes (Ghosh, 2019). The best treatment option for the patient's age and preferences, the biology and stage of the cancer, and the risks and advantages of each therapy regimen are all taken into account while making treatment decisions.

The current study discovered that the majority of samples had no known family history of breast cancer. According to (DeSantis et al., 2019), who noted that the majority of the study group had a family history, these findings are dissimilar.

The current study found that more than half of the sample ceased using analgesics, which was thought to be the most prevalent method, as a pain aggravating factor, but continued to use analgesics. for reducing pain. According to (Johannsen, O'Toole, O'Connor, Jensen & Zachariae, 2018), these findings are supported and explained. They claimed that altering the level of discomfort may control a patient's symptoms and show the treatment was working. When an extremity is affected, pain tends to worsen with movement and frequently implies bone involvement of the extremities. Pain that intensifies when lying down may be a sign of spinal involvement and has to be treated right once.

In this study, almost one-third of the sample reported having pain that was dull, aching, or stabbing as well as aching, cramping, or abdominal pressure. Because there is no general or specialized pain language, patients must be given a list of adjectives to characterize their pain, according to the findings of (Fregoso, Wang, Tseng, & Wang, 2019). said. The pain is often neuropathic, frequently reported as localized, made worse by movement, and frequently described as burning, rash, electrical, or "tingling." Additionally, gut pain is acute, intense, episodic, and frequently poorly localized.

There was no statistically significant difference in pre- and post-intervention pain intensity between the study and control groups in the current study, as evidenced by considerably reduced mean pain intensity scores. rice paddies. The results of this research

are highlighted by (Rosenblum, Huo, Scarborough, Goldstein & Smith, 2018). They stated that even though medical professionals have received education and training in pain management, many patients do not get enough pain treatment. Over one-third of individuals with metastatic illness report severe, debilitating pain. In addition to negatively affecting patients' quality of life, pain can force independent people into early hospitalization when home care is no longer an option. As a daily reminder of the disease's incurable and progressing nature, pain can also be devastating psychologically.

According to the current study, there was no statistically significant difference in the study and control groups' levels of pain before versus after applying the acupressure technique. A better understanding of complementary pain management techniques results in greater pain control, enough analgesia and/or alleviation, and a decrease in the need for painkillers. 90% of people who feel pain would get satisfactory alleviation or relief if existing knowledge and resources were employed to treat it.

CONCLUSION:

The application of acupressure reduces pain in the study group, but not in the control group, which receives regular hospital care, according to the findings of the current study.

RECOMMENDATIONS:

1. Comprehensive simple Arabic booklet that includes instructions to manage pain to be handled to all patients on oncology department.
2. Developing an educational program for nurses about how to manage pain for breast cancer patients.
3. Encourage oncology hospitals to apply acupressure as treatment line to manage pain
4. Developing training program for nurses in oncology department about acupressure technique and creating new nursing positions for them.
5. Further researches are needed to examine the effect of acupressure on pain management on large sample size for generalization of results to population of breast cancer patients.

References

Clark, S. D., Bauer, B. A., Vitek, S., & Cutshall, S. M. (2019). Effect of integrative medicine services on pain for hospitalized patients at an academic health center. *Explore*, *15*(1), 61-64.

DeSantis, C. E., Ma, J., Gaudet, M. M., Newman, L. A., Miller, K. D., Goding Sauer, A., ... & Siegel, R. L. (2019). Breast cancer statistics, 2019. *CA: A cancer journal for clinicians*, *69*(6), 438-451.

Dupuis, J., Langenberg, C., Prokopenko, I., Saxena, R., Soranzo, N., Jackson, A. U., Wheeler, E., Glazer, N. L., Bouatia-Naji, N., Gloyn, A. L., Lindgren, C. M., Mägi, R., Morris, A. P., Randall, J., Johnson, T., Elliott, P., Rybin, D., Thorleifsson, G., Steinthorsdottir, V., Henneman, P., … Barroso, I. (2010). New genetic loci implicated in fasting glucose homeostasis and their impact on type 2 diabetes risk. *Nature genetics*, *42*(2*), 105–116.* Retrieved from https://doi.org/10.1038/ng.520.

Fregoso, G., Wang, A., Tseng, K., & Wang, J. (2019). Transition from acute to chronic pain: Evaluating risk for chronic postsurgical pain. *Pain physician*, *22*(5), 479-488.

Ghosh, S., Gensler, L. S., Yang, Z., Gasink, C., Chakravarty, S. D., Farahi, K., Ramachandran, P., Ott, E., & Strober, B. E. (2019). Ustekinumab safety in psoriasis, psoriatic arthritis, and crohn's disease: An Integrated Analysis of Phase II/III Clinical Development Programs. *Drug safety*, *42*(6), 751–768.

Retrieved from https://doi.org/10.1007/s40264-019-00797-3

Ibrahim, A., Khaled, H., Mikhail, N., Baraka, H. & Kamel, H.(2020): Cancer incidence in Egypt: Results of the National Population-Based Cancer Registry Program. J Cancer Epidemiol. 2020; 437971

Israel, L., Rotter, G., Förster-Ruhrmann, U., Hummelsberger, J., Nögel, R., Michalsen, A., Tissen-Diabaté, T., Binting, S., Reinhold, T., Ortiz, M., & Brinkhaus, B. (2021). Acupressure in patients with seasonal allergic rhinitis: A randomized controlled exploratory trial. *Chinese medicine*, *16*(1), 137.

Retrieved from https://doi.org/10.1186/s13020-021-00536-w

Johannsen, M., O'Connor, M., O'Toole, M. S., Jensen, A. B., & Zachariae, R. (2018). Mindfulness-based cognitive therapy and persistent pain in women treated for primary breast cancer: exploring possible statistical mediators: Results from a randomized controlled trial. *The Clinical journal of pain*, *34*(1), 59–67.

Retrieved from https://doi.org/10.1097/AJP.0000000000000510

Miller, K. R., Patel, J. N., Symanowski, J. T., Edelen, C. A., & Walsh, D. (2019). Acupuncture for cancer pain and symptom management in a palliative medicine clinic. *American Journal of Hospice and Palliative Medicine®, 36(4), 326-332.*

Mills, S., Nicolson, K. P., & Smith, B. H. (2019). Chronic pain: A review of its epidemiology and associated factors in population-based studies. *British journal of anaesthesia*, *123*(2), e273–e283.

Retrieved from https://doi.org/10.1016/j.bja.2019.03.023

National Cancer Institute (2020): Surveillance, Epidemiology and ERP (SEER). Cancer stat facts: Female breast cancer. Available online: http://seer.cancer.gov/statfacts/html/breast.ht ml (accessed on 26 June 2020).

National institutes of health. (2003). Pain intensity instrument: 0-10 numeric rating scale available at: http://painconsortium.nih.gov/pain_scales/Numeric Rating Scale. Pdf؛ Retrieved on: 1/ April /2009.

Oldenmenger, W. H., Geerling, J. I., Mostovaya, I., Vissers, K., de Graeff, A., Reyners, A., & van der Linden, Y. M. (2018). A systematic review of the effectiveness of patient-based educational interventions to improve cancer-related pain. *Cancer treatment reviews, 63,* 96–103.

Retrieved from https://doi.org/10.1016/j.ctrv.2017.12.005

Pain scale Joint Commission on Accreditation of Healthcare Organizations and the National Pharmaceutical Council, Inc. December 2001. Retrieved 2018-01-20.

Pain scale: What it is and how to use it: Healthline. 2017-12-11. Retrieved 2019-03-20.

Perera, K., Jacob, S., Wilson, B., Ferlay, J., Bray, F.& Sullivan, R. (2021). Global demand for cancer surgery and an estimate of the optimal surgical and anesthesia workforce between 2018 and 2040: a population-based modelling study. *Lancet Oncol 2021;22(2):* 182-189. https://doi.org/10.1016/S1470-2045(20)30675-6

Rosenblum, R., Huo, R., Scarborough, B., Goldstein, N., & Smith, C. B. (2018). Comparison of quality oncology practice initiative metrics in solid tumor oncology clinic with or without concomitant supportive oncology consultation. *Journal of Oncology Practice, 14*(12), e786-e793.

Sears R. (2020). Managing acute cancer pain. *JAAPA: official journal of the American Academy of Physician Assistants*, *33*(6), 31–33.

Retrieved from https://doi.org/10.1097/01.JAA.0000662384.93538.a2

Serçe, S., Ovayolu, Ö., Pirbudak, L., & Ovayolu, N. (2018). The effect of acupressure on pain in cancer patients with bone metastasis: A nonrandomized controlled trial. Integrative *Cancer Therapies, 17(3), 728-736.*

Siegel, R. L., Miller, K. D., & Jemal, A. (2019). Cancer statistics, 2019. *CA: A cancer journal for clinicians*, *69*(1), 7–34.

Retrieved from https://doi.org/10.3322/caac.21551 .

تأثير تطبيق العلاج بالضغط على الألم لدى مرضى سرطان الثدى

سماح جابر أبوالعطا، وفاء اسماعيل شريف، أمل بكر أبوالعطا ، رشا حمدى حامد ،هبة عبدالرحيم عبدالرحيم

التمريض الباطني والجراجى-جامعة ماجستيرتمريض باطنى وجراحى –جامعة المنصورة، أستاذ الأورام والطب النووى التمريض الباطني و الجراحي – جامعة بورسعيد ، أستاذ المنصورة ، أستاذ -كلية الطب -جامعة المنصورة ، أستاذ مساعد التمريض الباطني و الجراحي – جامعة بورسعيد

الخلاصة

يعد مرض سرطان الثدى اكثر انواع السرطان شيوعا بين النساء والمسبب الرئيسى الثانى للوفاة بينهم بعد سرطان الرئة وغالبا يصاحب الالم المتلازم للسرطان مع الارق. ونظرا لهذا السبب فقد اجريت هذة الدراسة بهدف اكتشاف تاثير العلاج بالضغط على الالم لدى مرضى سرطان الثدى. وقد اجريت الدراسة فى أقسام الاورام بمستشفيات جامعة المنصورة ،وقد شاركت فى هذة الرسالة (٦٠) مريضة الاتى تتوافر فيهم الشروط اللازمة لاجراء الدراسة وتم تقسيمهم الي مجموعتين متساويتان بحيث مجموعة تتلقى العلاج بالضغط والمجموعة الاخرى تتلقى العلاج الروتينى للمستشفى. وقد تم استخدام ثلاث أدوات لجمع البيانات، **الاولى**: استمارة استبيان المعلومات وتشمل المعلومات الديموجرافية والتاريخ المرضى **والثانية:** استمارة استبيان الالم وتشمل على خصائص الالم ،العلامات الفسيولوجية والعلامات السلوكية **والثالثة:** المقياس العددى لحدة الالم. ولقد كشفت النتائج أن هناك تاثير لتطبيق العلاج بالضغط على معالجة الالم. واوصت هذة الدراسة تطوير برنامج تعليمى للمرضات حول كيفية ادارة الالم لمرضى سرطان الثدى وكذلك تشجيع مستشفيات الأورام علي تطبيق العلاج بالضغط لمعالجة الالم .

الكلمات المرشدة: الألم ،العلاج بالضغط ، سرطان الثدى ،