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Effectiveness Of Acupressure In Reduction Of Pain And Anxiety Among Women With Modified Radical Mastectomy

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Abstract:
background*: Acupressure is helpful and powerful technique used to reduce postoperative pain and anxiety through stimulation of the blood circulation and secretion of neurotransmitters. That providing comfort post mastectomy treatment for women with breast cancer. This study aimed to assess the effect of acupressure in reduction of pain and anxiety among women with modified radical mastectomy. Setting at Zagazig University Hospitals. Material and Method: a quasi-experimental (pre and posttest design). A purposive sample of total 134 study participants, 67 in experimental and 67 in control group based on inclusion and exclusion criteria. Data collection questionnaire were prepared with extensive review of previous literatures. Data collection through three tools includes, interviewing questionnaire sheet, postoperative anxiety assessment scale, postoperative pain assessment scale. Result: a highly statistical difference was indicated between both study and control groups regarding the level of pain and anxiety. Conclusion: Acupressure reduces level of pain and anxiety among women with modified radical mastectomy.*

Keywords: *Acupressure, Anxiety, Pain, Radical Mastectomy*

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I. Introduction

Breast cancer is a major health issue in modern society. The National Cancer Institute in Cairo estimates that 12.7% of women born today will be diagnosed with breast cancer during the course of their lifetime. Breast cancer can impact patients physically and psychologically as well as organically, which can manifest as post mastectomy pain, depression, increased anxiety, shame, and occasional ideas of suicide. (**OMAR., et al., 2013)[(23)]& (EL-SAYED and ALI., 2011)[(8)].**

More than one-third of women with breast cancer therapy experience significant pain, emotional distress, anxiety, and/ or depression following diagnosis (**Erika., et al., 2018)[(9)]&(Vin-Raviv., et al., 2015)[(33)].** Anticipating surgery for breast cancer can create negative cognitions and emotions, such as anxiety and fear (**Carlson., et al., 2004)[(6)].** Psychological distress may adversely impact pain perception, immune-mediated wound healing, and return to physical function (**Powell., et al., 2016)[(26)]&(Kyranou., et al., 2014)[(15)].** Consequently, it is important to investigate non pharmacological studies that might help decrease pain and anxiety after modified radical mastectomy

Pain, anxiety, fatigue, muscle tension, lymph edema, and nausea are among the challenges facing patients following mastectomy. Many women are using integrative medicine such as massage therapy to complement traditional health care (**Nancy., et al., 2012)[(22)]&(Barnes., et al., 2008)[(3)]**. Massage therapy is used specifically to target common postoperative side effects such as pain, anxiety, fatigue, and muscle tension. In addition, massage therapy accounts for 44% of all complementary and alternative medicine services offered to patients in hospital settings (**Health Forum, 2011)[(10)].**

Postsurgical chronic pain after modified radical mastectomy is the consequence either of ongoing inflammation or, much more commonly, a manifestation of neuropathic pain, resulting from surgical injury to major peripheral nerves. The primary role of the nurse is to help women in pain management **(Henrik etal.,2016)[(12)].**

Today, using complementary medicine as a non-pharmacological approach in conjunction with nursing care and common treatments as clinical expertise and competence are emphasized **(Cherryand Jacob.,2013)[(7)].** Among the existing complementary medicine techniques, acupuncture, and acupressure are most commonly used in patients with cancer **(Ali., et al., 2015)[(1)] & (Shen., et al., 2002)[(28)].** Acupressure is a therapy used to manage various symptoms **(Lee and Frazier, 2011)[(17)].** Acupressure is rooted in acupuncture, and the hands or

elbows are used to apply physical pressure to acupoints for treatment **(Lee and Frazier, 2011)[17]&(Wu HS., et al., 2004)[35].**

Acupressure is based on the belief that vital energy (Chi/Qi) in the body is circulating through 12 main meridians **(Ouyang and Chen, 2004)[24].** Approximately 365 acupoints have been specified on these channels, and each of these points affects the performance of a specific body part (**Yang.,et al., 2008)[37].** Acupressure is based on the belief that problems, dysfunctions, and diseases are caused by an imbalance in the flow of vital energy in the body. Thus, by stimulating these specific points, the flow of vital energy can be balanced, and the problems, dysfunctions, or diseases can be treated **(Pilkington., 2010)[25].** In addition, in medical science there is a theory that acupressure, by adjusting the concentration of neurotransmitters and reducing the concentration of 5-hydroxytryptamine and adrenocorticotropic hormone in neural pathways, reduces anxiety (**Kao., et al., 2012)[13].** Acupressure promotes relaxation, relieves dyspnea, and enhances immunity **(Wu HS., et al., 2004)[35]**. Nurses have intimate and long-term relationships with patients, and can apply acupressure, as part of their nursing care, to reduce and treat patients' illnesses (**Maa., et al., 2007)[19].**

Anxiety may be caused due to a variety of reasons such as response to cancer diagnosis, long-term treatments, side effects of treatment, poor treatment adherence, frequent hospitalization, changes in the normal pattern of life, decreased quality of life, possible disfigurement, extreme pain, financial and social issues, dependence on others, family problems, and death or dying process **(Ali., et al., 2015)[1], (Arrieta., et al., 2013)[2]&(Lim., et al., 2011)[18].**

1.1. Significance of the study:

Pain and anxiety for women with modified radical mastectomy were recognized as distressing side effects of surgery and treatment for breast cancer, they have impact on the patient's functional status and consequently quality of life. Therefore, the management of these side effects represents a great challenge for the nurse. Using of measures, which are inexpensive, available, self-induced by the patient, easy to learn and free from side effects could be effective in management of pain and prevent anxiety. In an attempt to assess and test the effect of such measures, this study was conducted to assess the effect of acupressure in reduction of pain and anxiety among for women patients with modified radical mastectomy. So that, there is a great interest to conduct such type of research which might assist such patients to safely and effectively cope with the remarkable physical and psychological changes, hoping to improve their self-efficacy and quality of life (QOL).**(Salah Eldin., 2017)[27]& (Taha., et al., 2013)[30]**. Researchers have begun to pay attention to the reduction of pain and anxiety for women with modified radical mastectomy during the treatment period considering the large number of them. Moreover, because of inadequate understanding of women how to reduce the pain and anxiety both healthcare costs and unnecessary suffering increase. Hence, acupressure technique required to guide care planning.

1.2. **Aim of the study:** Assess the effect of acupressure in reduction of pain and anxiety among for women patients with modified radical mastectomy.

1.3. **Research Hypotheses:** women with modified radical mastectomy and utilize acupressure will have a reduction of pain and anxiety than those who do not.

II. Subjects and Methods

2.1 Research design: A quasi-experimental design (pre-post-test control group)was utilized to achieve the aim of the current study.

2.2 Setting: The present study was conducted at the oncology departments and clinic at Zagazig University Hospitals, Egypt.

2.3 Sample: A purposive sample size was calculated using a simplified formula:
$n=N/1+N(e^2)$total
sample=N=(200)=n=N/1+N(e)2 = 134 providing direct which provided by Yamane (1997) to be care to surgical patient at the above mentioned setting, it was equally divided into two groups each has (67) patients.

Inclusion criteria:
Adult women with modified radical mastectomy free from medical disorders after ended of chemo and radiotherapy (about 4 months).

Tools of Data Collection: Three tools used to collect data in order to achieve the aim of the study. The researcher developed three tools after reviewing the related literature.

Tool I- interviewing questionnaire sheet:

It included two parts, the first one include patient's demographic data such as age, educational level, educational qualification, and residence etc…, and the second part indicated to the history of the disease.

Tool II-postoperative anxiety assessment scale.

Anxiety was assessed using the state portion of the State-Trait Anxiety Inventory (STAI) questionnaire the day before and the day after surgery. The STAI is a self-report measure A 20 item questionnaire intended to measure postoperative anxiety, with items on a four point Likert scale. Each statement is responses rating patients level of anxiety on a 4 point scale (1 = not at all, 2 = somewhat, 3 = moderately so, 4 = very much). They were asked to pick any one response for each statement. The scores of STAI range from a minimum of 20 to a maximum score of 80.

Total anxiety scoring:

It was scored as the following:

1. No anxiety ---------- (1-20).
2. Mild anxiety ---------- (21-40).
3. Moderate anxiety ---------- (41-60).
4. Sever anxiety ---------- (61-80).

Validity& Reliability: Tool content validity was ascertained by three experts regarding nursing specialty .Necessary modifications were done accordingly. Reliability was tested statistically to assure that the tools are reliable before data collection it was done by cronbach's s alpha test and it was (0.974).

Tool III-postoperative pain assessment scale.

Researcher used both objective and subjective pain assessment scale to evaluate pain among studied women.

A-Visual analogue scale was utilized by the researcher to subjective signs of postoperative pain. Patients were asked to rate their overall pain using a 10-mm visual analogue scale (VAS), marked from 'no pain' to 'sever pain'.

Total pain score:

It was scored as the following:

No pain---------- (0).
Mild pain---------- (1-4).
Moderate pain--------- (5-7).
Sever pain ----------(8-10).

B-Faces rating scale (FRS):-

Objective pain assessment measure research score women pain score according to the face women that each face helps us understand how much pain they have and how this make them feel. Score start from face 0to 10. Face 0 is very happy. Face 2just a little bit. Face 4hurt a little more. Face6 hurts a whole lot. Face 10 hurts as much as image. Total pain score was calculated by divided the average score of both Numerical Pain Rating Scale and Wong- Baker faces pain scale .Total pain score was calculated as following no pain (0) , mild (1–3), moderate (4–6), or severe (7–10), was used to determine degree of labor pain. It was adapted from ***(Bellienie, 2008)*** **[5].**

Scale Reliability:

Scale reliability was tested statistically to assure that the tools are reliable before data collection it was done by cronbach's s alpha test and it was (0.954) for pain visual analogue scale and 0.875 for faces rating scale.

Pilot study: A pilot study was carried out on 10% of the total study sample to test the clarity, feasibility and applicability of the tools of the study. Pilot subjects were later included in the study as there was no radical modifications in the study tools.

Ethical considerations: The researchers explained the purposed of the study and their rights as a study participant, including anonymity and confidentiality, their rights to withdraw from the study at any time. Informed consent was obtained from the women participated in the current study.

Field work:

The study was implemented during the period from the first January 2018 to the end of June 2018 .The study tools were adapted and designed by the researcher after reviewing the relevant recent literatures. The researcher visited the study setting three days per week, for both study and control groups. The sampling was collected during a period of six months. The first 3month control group data were collected, while the second 3month study group data were collected.

For the study group: Based on the resources and the assistant acupressure expert's opinion, acupressure point were selected at wrist .women received a total of 5 days of acupressure. Each woman was asked to press the thumb at each acupoint alternately for 2 minutes, administered 2 times per day over a week's time frame. The duration of each acupoint massage was limited to 4 minutes. Each woman had Acupressure self-instructional module was given after posttest to make use of acupressure at home setting ***(UMA etal.,2011)[32], (Tsay., et al.,* 2004)[31]*&(Lan., etal., 2015)[16].***

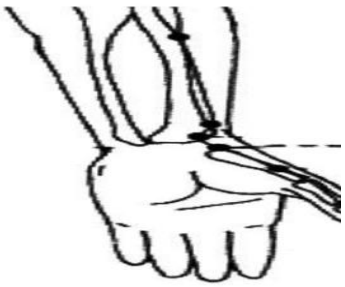

Figure (1) acupressure wrist points :(Uma etal., 2011)

For both study and control group level of pain and anxiety were evaluated at pre-intervention and for a period of 4n weeks, both pain and anxiety score were evaluate once a week. in addition times of daily analgesic intake among the studied groups.

III. Statistical Design

Data analysis was performed using IBM SPSS statistical software version 22. The data were explored. Descriptive statistics with mean and standard deviation (SD) for continuous variables and frequency for categorical variables were analyzed. Qualitative variables were compared using qui square test (X^2) as the test of significance. A significant level value was considered when p-value ≤ 0.05 and a highly significant level value was considered when p-value ≤ 0.001, while p-value > 0.05 indicates non-significant results.

IV. Results

Table (1), presents personnel characteristics' of the studied participant in both study and control group, it is seen that there was no statistical significant between study and control regarding their age, educational qualification, residence and occupational status.

Table (2), illustrates breast cancer history of the studied participants among both study and control group, it is seen that there was no statistical significant between study and control regarding their family history of breast cancer , onset of breast cancer diagnosis , site of mastectomy , and times of chemotherapy .

Table (3), shows level of pain at different times of assessment among the studied participants among both study and control groups, it was showed that there was no statistical significant difference between two groups regarding anxiety level at the pre-study phase. On the other hand there was a highly statistical significant difference was indicated between them at 1st, 2nd, 3rd, and 4th week after study.

Table (4), illustrates level of anxiety at different times of assessment among the studied participants among both study and control groups, it was showed that there was no statistical significant difference between two groups regarding anxiety level at the pre-study phase. On the other hand there was a highly statistical significant difference was indicated between them at 1st, 2nd, 3rd, and 4th week after study.

Table (5), reveals level of times of daily analgesic intake at different times of assessment among the studied participants among both study and control groups, it was showed that there was no statistical significant

difference between two groups regarding times of daily analgesic intake at the pre-study phase. On the other hand there was a highly statistical significant difference was indicated between them at 1st, 2nd, 3rd, and 4th week after study.

Table (1): Distribution of personnel characteristics of the studied participants (n=134).

Variable	Study group N=67		Control group N=67		X^2	P value
	No	%	No	%		
Age in years					2.02	>0.05
30-40	10	14.9%	9	13.4%		
41-50	33	49.3%	26	38.8%		
51-60	24	35.8%	32	47.8%		
Mean ±SD	46.8358±7.37440		48.2687±7.71182			
Educational level					1.64	>0.05
Illiterate	5	7.5%	3	4.5%		
Secondary education	30	44.8%	25	37.3%		
University	32	47.8%	39	58.2%		
Residence					1.63	>0.05
Rural	41	61.2%	48	71.6%		
Urban	26	38.8%	19	28.4%		
Occupation					0.747	>0.05
Yes	35	52.2%	30	44.8%		
No	32	47.8%	37	55.2%		

Table (2): Distribution of breast cancer history of the studied participants (n=134).

Variable	Study group N=67		Control group N=67		X^2	P value
	No	%	No	%		
Family history of breast cancer					1.92	>0.05
Yes	40	59.7%	32	47.8%		
No	27	40.3%	35	52.2%		
Onset of breast cancer diagnosis					0.975	>0.05
One year	27	40.3%	30	44.8%		
Two years	28	41.8%	29	43.3%		
>two years	12	17.9%	8	11.9%		
Site of mastectomy					3.31	>0.05
Right breast	49	73.1%	39	58.2%		
Left breast	18	26.9%	28	41.8%		
Times of chemotherapy					0.140	>0.05
6 times	16	23.9%	15	22.4%		
8 times	30	44.8%	29	43.3%		
>8 times	21	31.3%	23	34.3%		

Table (3): Distribution of level of pain at different times of assessment among the studied participants (n=134).

Degree of arm anxiety	Variable	Study group N=67		Control group N=67		X^2	P value
		No	%	No	%		
Pre-study	No	0	0.0	0	0.0	1.11	>0.05
	Mild	0	0.0	0	0.0		
	Moderate	30	44.8%	24	35.8%		
	Sever	37	55.2%	43	64.2%		
First week	No	0	0.0	0	0.0	55.39	<0.001**
	Mild	0	0.0	0	0.0		
	Moderate	57	85.1%	14	20.9%		
	Sever	10	14.9%	53	79.1%		
Second week	No	0	0.0	0	0.0	67.33	<0.001**
	Mild	19	28.4%	0	0.0%		
	Moderate	45	67.2%	20	29.9%		
	Sever	3	4.5%	47	70.1%		
Third week	No	0	0.0	0	0.0	78.64	<0.001**
	Mild	36	53.7%	0	0.0%		
	Moderate	31	46.3%	25	37.3%		
	Sever	0	0.0%	42	62.7%		
Fourth week	No	0	0.0	0	0.0	67.57	<0.001**

	Mild	36	53.7%	2	3.0%		
	Moderate	31	46.3%	28	41.8%		
	Sever	0	0.0%	37	55.2%		

Table (4): Distribution of level of anxiety at different times of assessment among the studied participants (n=134).

Degree of anxiety	Variable	Study group N=67		Control group N=67		X^2	P value
		No	%	No	%		
Pre-study	No	0	0.0	0	0.0	1.82	>0.05
	Mild	0	0.0	0	0.0		
	Moderate	15	22.4%	9	13.4%		
	Sever	52	77.6%	58	86.6%		
First week	No	0	0.0	0	0.0	17.69	<0.001**
	Mild	0	0.0	0	0.0		
	Moderate	34	50.7%	11	16.4%		
	Sever	33	49.3%	56	83.6%		
Second week	No					89.57	<0.001**
	Mild	35	52.2%	0	0.0%		
	Moderate	28	41.8%	10	14.9%		
	Sever	4	6.0%	57	85.1%		
Third week	No	0	0.0	0	0.0	105.76	<0.001**
	Mild	43	64.2%	0	0.0%		
	Moderate	24	35.8%	10	14.9%		
	Sever	0	0.0%	57	85.1%		
Fourth week	No	15	22.4%	0	0.0%	100.47	<0.001**
	Mild	33	49.3%	0	0.0%		
	Moderate	19	28.4%	15	22.4%		
	Sever	0	0.0%	52	77.6%		

Table (5): Distribution of times of daily analgesic intake among the studied participants (n=134).

Times of analgesic intake	Variable	Study group N=67		Control group N=67		X^2	P value
		No	%	No	%		
Pre-study	1-2 times	0	0.0	0	0.0	0.284	>0.05
	2-4 times	9	13.4%	7	10.4%		
	>4 times	58	86.6%	60	89.6%		
First week	1-2 times	19	28.4%	0	0.0%	31.77	<0.001**
	2-4 times	26	38.8%	17	25.4%		
	>4 times	22	32.8%	50	74.6%		
Second week	1-2 times	31	46.3%	0	0.0%	67.15	<0.001**
	2-4 times	32	47.8%	22	32.8%		
	>4 times	4	6.0%	45	67.2%		
Third week	1-2 times	43	64.2%	0	0.0%	77.11	<0.001**
	2-4 times	22	32.8%	28	41.8%		
	>4 times	2	3.0%	39	58.2%		
Fourth week	1-2 times	48	71.6%	0	0.0%	82.50	<0.001**
	2-4 times	17	25.4%	31	46.3%		
	>4 times	2	3.0%	36	53.7%		

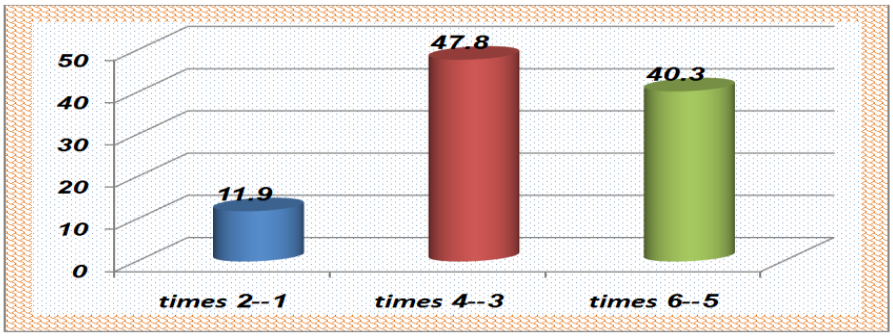

Figure (2): percentage distribution of frequency of daily applying of acupressure technique among the studied group (n=67).

V. Discussion

Acupressure is helpful and powerful technique used to reduce postoperative pain and anxiety through stimulation of the blood circulation and secretion of neurotransmitters, thus maintaining the normal functions of the human body and providing comfort Post mastectomy treatment for women diagnosed with breast cancer in reduction of pain and anxiety. Acupressure is a form of touch therapy that utilizes pressure with thumbs or fingertips to stimulate discrete points on the body for relief of a variety of symptoms including pain and anxiety and has also been highlighted in a critical research review. (***Merriam., 2013)[21], (Zick., et al., 2012)[38]&(Kirshbaum., 2010)***[14]

The results of the current study supported the stated hypothesis that women who performing acupressure significantly had a decreased of pain and anxiety score thanwomen in control group ,who had the ordinary care .These finding were supported by ***(Beikmoradi, etal., 2015)[4],*** in the study to assess effect of "Acupressure and anxiety in cancer patients" ,it was concluded that Acupressure is recommended as a complementary therapy to reduce anxiety in patients with cancer because of its low cost, safety, and simplicity. Utilization of acupressure for management of pain and anxiety among cancer patients was recommended by a variety of research studies ***(Wilkinson etal.,2017)[34], (*Lan., et al., 2015)[16], *(Heather,etal.,2014)[11]& (Matsuno,2012)[20]*** **.** These findings may be due to that, acupressure stimulates endogenous opioid system, and thus, affects intermediate behaviors and facilitates psychological improvement. Moreover acupressure had no side effect as pharmacological measures.

As regarding personal characteristics of the studied women at both study and control groups, the present study findings indicated that no statistical significant difference between study and control groups regarding their age, educational qualification, residence and occupational status. These finding supported by **(Taha etal.,2013)[30]** in the study to evaluate the effect of ' Educational Program Regarding Therapeutic Exercises on Women's Pain, Fatigue and Shoulder "Function Undergoing Mastectomy It was illustrated that there was no statistical significant between study and control regarding their age, educational qualification, residence.

As regarding the past medical history of breast cancer among the studied women the present study findings reveals that there was no statistical significant difference between study and control groups regarding their history of breast cancer , onset of breast cancer diagnosis , site of mastectomy , and times of chemotherapy .These findings were in the same line with **(Soliman., et al., 2017)[29]**in the study to assess the effect of " Efficacy of Non pharmacological technique on Chemotherapy Induced Nausea, Vomiting and Retching among Breast Cancer Patients", it was indicated that there was no statistical significant difference between study and control groups regarding their history of breast cancer.

In relation to the level of pain among the studied women, the present study finding showed that there was no statistical significant difference between two groups regarding pain level at the pre-intervention phase. These study findings agreed with **(Taha etal.,2013)[30],**who indicated that there was no statistical significant difference between two groups regarding pain level at the pre-intervention phase .

Regarding the effect of acupressure after modified radical mastectomy on pain among the studied women , the present study indicated that there was a highly statistical significant difference between both study and contropl group,The present study findings come in the same line with **(El-Sayed&Ali,2011)[8]**,in the study to assess " Effect of Counseling Intervention Post Mastectomy for Women Undergoing Adjuvant Chemotherapy on their Quality of Life ",who added that , there was decrease in pain among the study group after intervention, then after six months.

In relation to the level of anxiety among the studied women, the present study finding showed that there was no statistical significant difference between two groups regarding anxiety level at the pre-intervention phase. These study findings agreed with **(Nancy,etal., 2012)** ,in the study to Effect of "Massage Therapy for Postsurgical Mastectomy Recipients", it was revealed that there was no statistical significant difference between both study and control groups regarding the level of anxiety at the pre-intervention phase ($p>0.05$).

Concerning level of anxiety among the studied women, the present study finding showed that there was a highly statistical significant difference was indicated between studied groups at the 1st, 2nd, 3rd, and 4th week after intervention . These finding are agreed with **(Soliman., et al., 2017)[29]**,who added that acupressure as a non pharmacological measures is highly decrease level of anxiety ,and there was a highly statistical significance between both the study and control regarding the level of anxiety at the different times of assessment

VI. Conclusion

Based on the result of the current study, the present study concluded that acupressure is recommended as a complementary therapy to reduce level of pain and anxiety among women with modified radical mastectomy .

Recommendations

Acupressure technique for relieving pain and anxiety should be added to the health care protocol for women with modified radical mastectomy. Future studies on effect of acupressure on relieving pain and anxiety on large sample of women should be investigated.

References

[1]. **Ali B., Najafi F., Roshanaei G., Esmaeil Z., Khatibian M., Ahmadi A.,(2015);**Acupressure and Anxiety in Cancer Patients; Iran Red Crescent Med J. March; 17(3): e25919. DOI: 10.5812/ircmj.25919.

[2]. **Arrieta O, Angulo LP, Nunez-Valencia C, Dorantes-Gallareta Y, Macedo EO, Martinez-Lopez D, et al. (2013);** Association of depression and anxiety on quality of life, treatment adherence, and prognosis in patients with advanced non-small cell lung cancer. *Ann Surg Oncol.*;**20**(6):1941–8.

[3]. **Barnes, P.M., Bloom, B., & Nahin, R.L. (2008);** Complementary and alternative medicine use among adults and children: United States, 2007. *National Health Statistics Reports, 12,* 1–23.

[4]. **Beikmoradi.A; Najafi. F; Roshanaei. G., A; Esmaeil. P. Z; Khatibian. M; Ahmadi. A, (*2015);*** Acupressure and Anxiety in Cancer Patients, Iran Red Crescent Med J. March; 17(3): e25919.

[5]. **Bellieni Carlo Valerio,(2008);**Neonatal pain treatment: ethical to be effective, journal of Perinatology 28,87–88.

[6]. **Carlson LE, Angen M, Cullum J, et al (2004);** High levels of untreated distress and fatigue in cancer patients. Br J Cancer;90:2297–2304.

[7]. **Cherry B, Jacob SR (2013);** Contemporary Nursing, Issues, Trends, and Management. 6th ed: Elsevier Health Sciences.

[8]. **EL-SAYEDO. N. and ALI H. Z., (*2011);*** Effect of Counseling Study Post Mastectomy for Women Undergoing Adjuvant Chemotherapy on their Quality of Life, *Med. J. Cairo Univ., Vol. 79, No. 2, March: 95-107, www.medicaljournalofcairouniversity.com.*

[9]. **Erika Stoerkel, Dawn Bellanti, CRNP, CharmagnePaat, Kimberly Peacock, James Aden, Robert Setlik, Joan Walter and Alice Inman, (2018);** Effectiveness of a Self-Care Toolkit for Surgical Breast Cancer Patients in a Military Treatment Facility. Volume 24, Numbers 9 and 10, pp. 916–925 ª Mary Ann Liebert, Inc. DOI: 10.1089/acm.0069.

[10]. **Health Forum. (2011);***complementary and alternative medicine survey of hospitals: Summary of results.* Retrieved from http://www.siib.org/news/2468-SI IB/version/default/part/AttachmentData/data/CAM%20Survey%20FINAL.pdf.

[11]. ***Heather Greenlee, Lynda G. Balneaves, Linda E. Carlson, Misha Cohen, Gary Deng, Dawn Hershman,Matthew Mumber, Jane Perlmutter, Dugald Seely, Ananda Sen, Suzanna M. Zick, Debu Tripathy (2014***); Clinical Practice Guidelines on the Use of Integrative Therapies as Supportive Care in Patients Treated for Breast Cancer, Journal of the National Cancer Institute Monographs, No. 50.

[12]. **Henrik Kehlet, Troels S Jensen, Cliff ord J Woolf ,(2016);**Persistent postsurgical pain: risk factors and prevention. Located at www.thelancet.com Vol 367.

[13]. **Kao CL, Chen CH, Lin WY, Chiao YC, Hsieh CL (2012);** Effect of auricular acupressure on peri- and early postmenopausal women with anxiety: a double-blinded, randomized, and controlled pilot study. Evid Based Complement Alternat Med;2012:567639.

[14]. ***Kirshbaum. M., (*2010*); "Cancer-related fatigue"*** a review of nursing study," British Journal of Community Nursing, vol. 15, no.5, pp.214–219.

[15]. **Kyranou BM, Puntillo EK, Dunn ML, et al (2014);** Predictors of initial levels and trajectories of anxiety in women before and for 6 months after breast cancer surgery. Cancer Nurs;37:406–417.

[16]. **Lan., Su-Chen, Yueh-E Lin, Shu-Ching Chen, Yu-Fang Lin, and Yu-JenWang (2015);** Effects of Acupressure on Fatigue and Depression in Hepatocellular Carcinoma Patients Treated with Transcatheter Arterial Chemoembolization: A Quasi-Experimental Study, Evidence-Based Complementary and Alternative Medicine, Article ID 496485, 10 pages.

[17]. **Lee. E. J. and Frazier. S. K., (2011); "**The efficacy of acupressure for symptom management: a systematic review," *Journal of Painand Symptom Management*, vol. 42, no. 4, pp. 589–603.

[18]. **Lim CC, Devi MK, Ang E. (2011);** Anxiety in women with breast cancer undergoing treatment: a systematic review. *Int J Evid Based Healthc.*;**9**(3):215–35.

[19]. **Maa SH, Tsou TS, Wang KY, Wang CH, Lin HC, Huang YH (2007);** Self-administered acupressure reduces the symptoms that limit daily activities in bronchiectasis patients: pilot study findings. J Clin Nurs;16(4):794–804.

[20]. **Matsuno RK, Pagano IS, Maskarinec G, Issell BF, Gotay CC., (2012);** Complementary and alternative medicine use and breast cancer prognosis: a pooled analysis of four population-based studies of breast cancer survivors. *J Womens Health (Larchmt)* ;21(12):1252–1258.

[21]. **Merriam-Webster Dictionary, "Dictionary," (2013)**; http://www .merriam-webster.com/dictionary/acupressure.

[22]. **Nancy L. D, TMB, C. D, James ,J, , Susanne M. ,Barbara S. T, Julie . B.L. VanderLei, P .C, Jane K. C, Lisa D. B,StephenS. C, Brent A. B and Judy C. B ;(2012);** Effect of Massage Therapy for Postsurgical Mastectomy Recipients, April • Volume 16, Number 2, Clinical Journal of Oncology Nursing .

[23]. **OMAR S., KHALED H., GAAFAR R., ZEKRY A.R., EISSA S., et al. (2013):** Breast cancer in Egypt: A review of disease presentation and detection strategies Eastern Mediterranean Health Journal, 9 (3): 448-436.

[24]. **Ouyang H, Chen JD (2004);**Review article: therapeutic roles of acupuncture in functional gastrointestinal disorders. Aliment Pharmacol Ther.;20(8):831–41.

[25]. **Pilkington K (2010);** Anxiety, depression and acupuncture: A review of the clinical research. Auton Neurosci.;157(1-2):91–5.

[26]. **Powell R, Scott NW, Manyande A, et al (2016);** Psychological preparation and postoperative outcomes for adults undergoing surgery under general anesthesia. Cochrane Database Syst Rev;5:CD008646.

[27]. **Salah Eldin. N, (2017**): Effect of Educational Guidelines on Self-Efficacy and Meeting Health Needs of Women Undergoing Modified Radical Mastectomy, Unpublished doctorate thesis, faculty of Nursing, Helwan University.

[28]. **Shen J, Andersen R, Albert PS, Wenger N, Glaspy J, Cole M, et al (2002);**Use of complementary/alternative therapies by women with advanced-stage breast cancer. BMC Complement Altern Med.;2:8.

[29]. **Soliman H.,G., Alagizy H., Shehata S.,O.,(2017);**Efficacy of Non pharmacological technique on Chemotherapy Induced Nausea, Vomiting and Retching among Breast Cancer Patients, IOSR Journal of Nursing a nd Health Science (IOSR-JNHS) e-ISSN: 2320–1959.p- ISSN: 2320–1940 Volume 6, Issue 5 Ver. V. (Sep. -Oct .2017), PP 60-72 www.iosrjournals.org.

[30]. **Taha M., N, Abdel Aziz, A.,M.,and Shaban E.,A.,(2013);** Effect of Educational Program Regarding Therapeutic Exercises on Women's Pain, Fatigue and Shoulder Function Undergoing Mastectomy. Journal of American Science;9(3) .http://www.jofamericanscience.org.

[31]. **Tsay S.-L., Cho Y.-C., and Chen M.-L., (2004);** "Acupressure and Transcutaneous Electrical Acupoint Stimulation in improving fatigue, sleep quality and depression in hemodialysis patients," *American Journal of Chinese Medicine*, vol. 32, no. 3, pp. 407–416.
[32]. **UMA, M.,Vijayarani Prince, Sudhahar, P.,(2011);** EFFECTIVENESS OF ACUPRESSURE ON IMPROVING THE QUALITY OF SLEEP AMONG CANCER PATIENTS IN H.C.G CANCER CENTER AT ERODE. Published master thesis.
[33]. **Vin-Raviv N, Akinyemiju TF, Galea S, Bovbjerg DH (2015);** Depression and anxiety disorders among hospitalized women with breast cancer. PLoS One;10:e0129169.
[34]. **Wilkinson SM, Love SB, Westcombe AM, et al; (2017);** Effectiveness of aromatherapy massage in the management of anxiety and depression in patients with cancer: a multicenter randomized controlled trial. *J Clin Oncol*.2007;25(5):532–539.
[35]. **Wu HS, Wu SC, Lin JG, Lin LC (2004);** Effectiveness of acupressure in improving dyspnoea in chronic obstructive pulmonary disease. J Adv Nurs.;45(3):252–9.
[36]. **Yamane, T., (1967);** Statistics an Introductory Analysis. 2nd Ed. New York Harper and Row.
[37]. **Yang CH, Lee BH, Sohn SH (2008);**a possible mechanism underlying the effectiveness of acupuncture in the treatment of drug addiction. Evid Based Complement Alternat Med.;5(3):257–66.
[38]. ***Zick. S. M., G. K. Wyatt, S. L. Murphy, J. T. Arnedt, A. Sen,and R. E. Harris,(2012);*** *"Acupressure for persistent cancer-related fatigue in breast cancer survivors (AcuCrft): a study protocol for a andomized controlled trial," BMC Complementary and Alternative Medicine, vol. 12, article 132.*

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