

## EFFECTS OF THERAPEUTIC MASSAGE ON THE QUALITY OF LIFE AMONG PATIENTS WITH BREAST CANCER DURING TREATMENT

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## Massage

- ❖ One of the earliest practiced remedies known to mankind
- ❖ Most natural instinctive way to relieve pain
- ❖ Ancient civilizations utilized massage for pain relief and to improve a sense of well-being



## Learning Objectives

1. Describe three positive physical and emotional benefits of therapeutic massage
2. Define the researchers' measures for quality of life (QOL)
3. Identify the relationship between quality of life and therapeutic massage

## The impact of anxiety & stress on breast cancer patients

- ❖ Anxiety/Stress describes the biological responses of an individual to adverse stimuli
- ❖ Stress disrupts normal body states
  - ❖ Stressful stimuli can be physical, mental or emotional
- ❖ Breast cancer survivors have elevated levels of basal cortisol (response to a cancer related stressor) even several years after completing treatment
- ❖ Lower cortisol concentrations are associated with better quality of social support



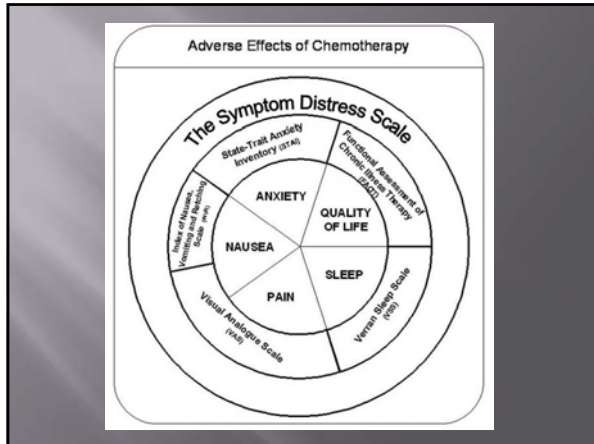
## Significance

- ❖ An estimate of 62,030 in situ and 178,480 invasive new breast cancer cases were estimated to occur in the United States in 2007
- ❖ One third of all new cancer diagnosis for women consist of breast cancer.
- ❖ Breast Cancer:
  - ❖ Mortality
  - ❖ Morbidity
  - ❖ Costs of treatment
  - ❖ Costs to quality of life



## Methods

- ❖ Purpose: Assess the impact of therapeutic massage on the QOL of patients treated for breast cancer
- ❖ Prospective, convenience sample, pre-post assessment design
- ❖ Participants: 51 female breast cancer patients referred by their medical oncologist who live in South Central Kansas
- ❖ Study duration was 21 months
- ❖ Outcomes were assessed using dependent t-tests in SPSS version 15.0.



### Distribution of Diagnosis, Stage and Histology

Diagnosis	Frequency	Percent
Ductal CA	32	63%
Lobular CA	6	12%
Other	13	25%

Stage	Frequency	Percent
I	8	16%
IA	3	6%
IB	1	2%
II	13	26%
III	5	10%
IV	7	14%
Reoccurrence	14	27%

Histology	Frequency	Percent
Infiltrating Ductal CA	43	84%
Lobular CA	5	10%
Colloid CA	1	2%
None-Inflam. Breast Cancer	1	2%

- ## Intervention
- ❖ Pre massage therapy evaluation
  - ❖ Massage therapy for 30 minutes, once per week for three sequential weeks.
  - ❖ Measures collected at baseline (prior to cancer treatment) and one week after last treatment
  - ❖ Instruments selected for this study were used in previous massage therapy studies to measure QOL/health status and have documented validity and reliability

### Quality of Life Self-Ratings, Pre vs. Post Intervention

Item	Pre $\mu$	Post $\mu$	df	t-test	p	$\eta^2$
<b>State and Trait Anxiety</b>						
State	38.5	35.4	45	2.182	.03	0.31
Trait	38.4	35.4	45	2.202	.03	0.31
<b>Visual Analog Pain Scale</b>						
VAS	32.0	27.2	45	1.392	.17	0.20
<b>Distress Scale</b>						
Distress	21.9	20.6	45	1.611	.11	0.23
<b>Sleep scale</b>						
Sleep	325.9	332.4	45	-.500	.62	0.07
Number of awakenings	18.5	23.6	45	-1.253	.21	0.18
Amount of movement	38.6	38.1	45	1.36	.89	0.20
Time (settle down-waking)	8.3	6.8	45	1.103	.28	0.16
Time (settle down-sleep)	40.8	25.6	45	2.393	.02	0.33
Soundness of sleep	55.1	63.4	45	-2.00	.05	0.29
Feeling rested upon awaking	52.8	54.0	45	-.353	.73	0.05
Spontaneity with which	54.9	55.1	45	-.072	.94	0.01
Sleep satisfaction, quality, disturbance	56.9	65.8	45	-2.613	.01	0.36

- ## Participant Demographics
- ❖ Predominantly white (84.3%) and married (60%)
  - ❖ Mean age was 53 years (range 27 to 79 yrs)
  - ❖ Majority reported some college or college degree (39.0%)
  - ❖ Majority employed full-time (45%)
  - ❖ Approximately 2/3 reported household income above the median for the Wichita MSA (\$43,802)

### Quality of Life Self-Ratings Pre vs. Post Intervention

Functional Assessment of Chronic Illness Therapy – Breast Cancer (FACT B)	Pre $\mu$	Post $\mu$	df	t-test	p	$\eta^2$
Fact B	75.0	99.6	50	-2.217	.03	0.30
Physical	10.5	15.4	45	-2.116	.04	0.30
Social	24.1	28.5	49	-2.339	.02	0.32
Emotional	7.1	10.8	44	-1.791	.08	0.26
Functional	18.3	23.9	46	-2.446	.02	0.34
Breast Cancer	16.3	21.5	46	-1.616	.11	0.23

## Limitations



- ❖ Sample Size
- ❖ Chemo Brain
- ❖ Self report – Recall Bias
- ❖ Generalizability

## Conclusion

- ❖ Women being treated for breast cancer had a reduction in state and trait anxiety after three weeks of massage therapy
- ❖ Pain and Distress reduced
- ❖ Functionality improved
- ❖ Aspects of Sleep Quality improved
- ❖ Future research should include use of immunological markers, increased frequency, longer duration and long-term massage therapy

## For more information

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