

Harnessing Mindfulness Based Interventions for Reducing Anxiety among Postoperative Breast Cancer Women

Prepared by

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Introduction:-

Breast cancer is a disease in which cells in the breast grow out of control.

Breast cancer women have physical, psychological, and social concerns.

The most prevalent psychological symptoms are stress, anxiety, and depression as well as physical symptoms such as pain, sleep disturbances and fatigue which can trigger fear of death, recurrence, altered body image, and diminished well-being, among others (Vogel, 2023).



Cont., Introduction:

Many women with breast cancer turn to *Complementary Therapies* to deal with the symptoms of the disease. *Meditation* is one of complementary alternatives that positively influences the rehabilitation by reducing pain, stress, anxiety, depression, fatigue, and even the side effects caused by drug treatments (**Eijsbouts, 2021**).



Cont., Introduction:

Mindfulness focuses on self-regulation of attention and a state of consciousness that is associated with non-judgmental moment-to-moment awareness. The most commonly used **Mindfulness-Based Interventions (MBI)** which consist of :

- 1-Mindfulness-Based Stress Reduction (MBSR)
- 2-Mindfulness-Based Cognitive Therapy (MBCT). (Whitfield, 2022).



Significant of the study

Anxiety is a major sign with breast cancer and can be the major cause of relapsing or mastitis. **MBIs** are particularly helpful in dealing with common experiences related to cancer diagnosis and treatment including loss of control and fears of recurrence, as well as a range of physical and psychological symptoms, including depression, anxiety, insomnia, and fatigue.



Aim of the Study

The aim of the study is to evaluate the effectiveness of mindfulness-based intervention for reducing anxiety among post-operative breast cancer women through:

- 1- Assessing the anxiety level among post-operative breast cancer women for pre, post, and follow up the MBIs program.
- 2- Assessing the mindfulness among post-operative breast cancer women for pre, post, and follow up the MBIs program.
- 3- Applying the Mindfulness Based-Interventions program for post-operative breast cancer women.
- 4- Evaluating the effect of Mindfulness Based-Interventions program on post-operative breast cancer women post, and follow up the MBIs program.



Study Setting

This study was conducted at **Nasser Institute for oncology** including outpatient units.



Study Sample

Subject/ Sampling:

All post-operative breast cancer women.

Type of the sample:

Convenience sampling was used in the current study included 30 post-operative breast cancer women.



- 1 • Socio-demographic and knowledge assessment about breast cancer questionnaire:
- 2 • Freiburg Mindfulness Inventory (FMI). (Wallach H et al., 2006)
- 3 • Hamilton Anxiety Rating Scale (HAM-A), (Hamilton, 1959)



Results

Table (1): Socio-demographic Characteristics of the studied sample

Socio-demographic data	No.	%
Age (years)		
38 - < 46 years	10	33.3
> 46 years	20	66.7
Mean±SD 48.33±7.25		
Mitral status		
Married	30	100.0
Address		
In-Cairo	22	73.3
Out-Cairo	8	26.7
Occupation		
Worker	10	33.3
House-wife	20	66.7



Figure (1): Percentage distribution of the studied women according to if they have children .

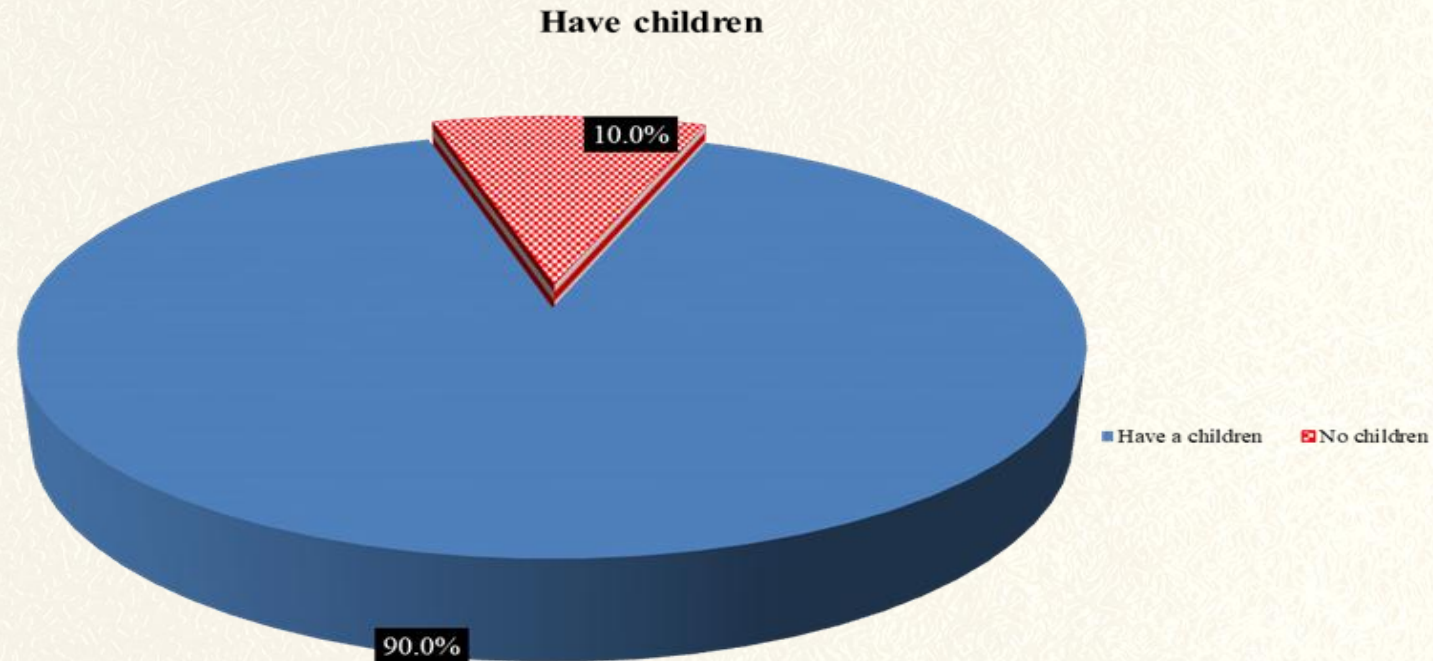


Table (2): Medical History of the studied sample

Item	No.	%
Number of relapsing		
1st time of disease	30	100
Type of current treatment		
Chemotherapy treatment	30	100
Do you have heredity with the disease?		
Yes	10	33.3
No	20	66.7
Do you have heredity with the disease?		
Yes, Mothers have breast cancer	10	33.3
Nodules in breast)	22	73.3
Pain in breast	5	16.7
Breast self-examination	3	10.0



Figure (2): Percentage distribution of the studied women according to their level/ grade of disease.

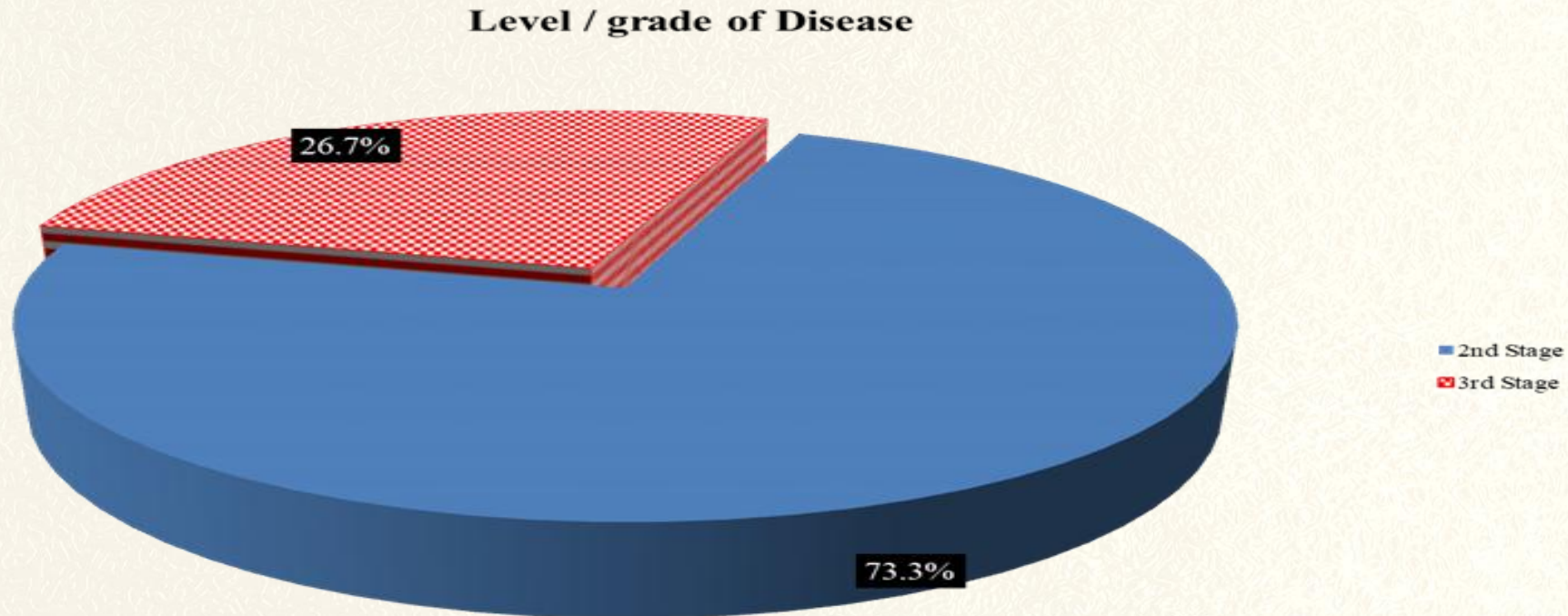


Table (3): Knowledge Assessment about Breast Cancer

Knowledge	Pre Program		Post Program		Follow UP Program		Pre-Post		Pre-FU	
	No.	%	No.	%	No	%	χ^2	<i>p</i> -value	χ^2	<i>p</i> -value
Satisfactory >60% (4-6)	14	46.7	26	86.7	24	80.00	9.075	0.003*	8.919	0.015*
Unsatisfactory <60% (0-3)	16	53.3	4	13.3	6	20.00				
Total	30	100.0	30	100.0	30	100.0				
Mean score \pm SD	2.38 \pm 1.04		4.38 \pm 1.27		3.97 \pm 1.18					
Range	1-4		3-6		2-5					
% Percentage of change	--		84.03%		79%					



Table (4): Number And Percentage of Studied Sample according to their level of Mindfulness Awareness

Level of total FMI Tool to Measure MBIs	Pre Program (n=30)		Post Program (n=30)		Follow Up (n=30)		Pre-Post		Pre-FU	
	No.	%	No.	%	No.	%	x^2	<i>p-value</i>	x^2	<i>p-value</i>
Low awareness (14-19)	20	66.7	0	0.0	1	3.3	56.143	<0.001**	8.571	0.016*
Moderate awareness (20-37)	10	33.3	5	16.7	7	23.3				
High awareness (38-56)	0	0.0	25	83.3	22	73.4				
Mean score \pm SD	19.67 \pm 3.15		35.33 \pm 4.68		33.63 \pm 3.55					
Range	17-23		26-43		19-41					
%Percentage of change	--		79.61%		70.97%					



Table (5): Number And Percentage of Studied Sample according to their level of Anxiety

Level of HARS tool to measure Anxiety	Pre Program (n=30)		Post Program (n=30)		Follow Up (n=30)		Pre-Post		Pre-FU	
	No.	%	No.	%	No.	%	x^2	<i>p-value</i>	x^2	<i>p-value</i>
Normal anxiety (0-14)	0	0.0	11	36.7	7	23.3	24.178	<0.001**	7.430	0.020*
Mild Anxiety (15-28)	4	13.3	16	53.3	16	53.3				
Moderate Anxiety (29-42)	21	70.0	3	10.0	6	20.0				
Severe Anxiety (43-56)	5	16.7	0	0.0	1	3.3				
Mean score \pm SD	38.93 \pm 3.3		15.93 \pm 2.1		17.23 \pm 3.13					
Range	21-47		6-36		10-43					
% of change	---		59.1%		55.7%					



Table (6): Correlation between **total score of knowledge** about breast cancer and **total score of Freiburg Mindfulness Inventory (FMI)** and **total score of HARS tool**

		Total score of knowledge			Total score of FMI			Total score of Anxiety		
		Pre	Post	FU	Pre	Post	FU	Pre	Post	FU
Total score of knowledge	<i>r</i>				0.162	0.395	0.375	0.209	0.423	0.402
	<i>p-value</i>				0.878	0.025*	0.029*	0.657	0.024*	0.028*
Total score of FMI	<i>r</i>	0.162	0.395	0.375				0.236	0.552	0.430
	<i>p-value</i>	0.878	0.025*	0.029*				0.562	<0.001**	0.027*
Total score of Anxiety	<i>r</i>	0.209	0.423	0.402	0.236	0.552	0.430			
	<i>p-value</i>	0.657	0.024*	0.028*	0.562	<0.001**	0.027*			



Conclusion

Based on the results of the current study, it was concluded that the program of mindfulness-based interventions had **statistically significant effect** on **reducing anxiety** among post-operative breast cancer women and **increasing** the mindful awareness among them.



Recommendations

In the light of the result of the current study, the following recommendations are suggested:

1) Education:

- Mindfulness strategies should be added into the nursing curriculum to train future nurses to apply the strategy with cancer patients to manage anxiety with them during treatment process.



Cont., Recommendations

2) Community:

- MBIs program should be included in the protocol of treatment as a psychological support for reducing anxiety among breast cancer women.

3) Research:

- Further researches and similar studies should be conducted for breast cancer and other types of cancer in different settings and with a larger sample size to generalize findings.



