

البحث الأول

Effects of Exercise Intervention on Pain, Shoulder Movement, and Functional Status in Women after Breast Cancer Surgery: A Randomized Controlled Trial

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Breast cancer is the most common malignancy that affect women in worldwide. It is a significant stressor in women's life that may affect functional health status. Breast cancer and its treatments often correlated with declined upper extremity (UE) function and motor dysfunction and pain can lead to debilitate patients functional and negatively affect the quality of life.

Exercise can decrease the side effects of treatment, aid in recovery and enhancing survival following surgery, radiation and chemotherapy. Many studies concluded the exercise intervention with upper limb dysfunction. This attributed that physical activity and exercises is an effective methods to prevent upper limb dysfunction and better QoL.

Aim of the Study:

To evaluate effect of exercise intervention on pain, shoulder movement, and functional status in women post breast cancer surgery.

Research hypothesis:

It is hypothesized that the exercise intervention will have a positive effect on pain, shoulder mobility and functional outcomes among breast cancer surgery patients.

2. Subjects and methods:

Research design:

A Quasi experimental research design was used in this study.

Study Setting:

This study conducted at inpatient ward and outpatient clinic of the Oncology department at Main Mansoura University Hospital (MMUH).

Study Subjects:

A convenience sample of sixty patients at admitted to oncology department. The sample randomly selected and divided into two equal

groups: (30) study group and (30) control group. Study group received the exercise intervention and control group received the routine care from hospital.

Tools for data collection:

Three tools were utilized in this study. It is developed by researcher after reviewing the literatures.

Tool I: Functional status questionnaire:

The Inventory of Functional Status Cancer (IFS-CA) adopted by Tulman et al. and adapted by El sayed to measure functional status of breast cancer women.

Tool II: Pain Assessment Scale Numerical Pain Rating scale (NPRS): was adopted from (McAfferry & Beebeg), used to measure pain intensity.

Tool III: Range of motion of the shoulder (ROM): The measurement of shoulder ROM was demonstrated by using a universal goniometer was developed by Riddle, Rothstein & Lamb to assess shoulder mobility as active and passive.

Tool IV: Socio-demographic and Medical data:

Socio-demographic data was gathered from existing self-report and medical record review information collected during enrollment of the subjects.

The main results obtained were as follows:

- The results of this study shows that the difference of the pain mean scores between intervention and control groups pre and post implementation of exercise therapy.
- The results of this study reveals that there are statistical significant differences in the pain level assessment at three time in the intervention when compared with control group at the $p < 0.05$.
- The study illustrated that, function status dimensions improvement over time from beginning of week 0 to 12 weeks after exercise therapy. As regard personal care, social activities and household activities ($p < 0.05$).
- There were that correlation between the exercise program with pain level, shoulder movement and functional status pre , post and follow up after participations in the program ($p < 0.05$).

Conclusion and recommendations:

The exercise intervention can be effective in the management of breast cancer symptoms through improving level of pain and shoulder movements. In addition, improvement in physical and psychological functioning and overall quality of life.

It is recommended that apply this intervention as a routine care in the study setting and similar ones. Further research should be conducted in different geographical areas to better assess the impact of exercise therapy on people's upper limb mobility, daily activities and quality of live.

توقيع مقدم البحث

مقدم البحث

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