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APPLICATION OF A REMOTE, FULLY ORIENTED PERSONALIZED PROGRAM OF PHYSICAL EXERCISE FOR WOMEN IN FOLLOW-UP AFTER BREAST CANCER TREATMENT: EFFECTS ON BODY COMPOSITION AND PHYSICAL FITNESS

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Objective: Getting back to regular physical activity soon after completing the treatment for breast cancer may be a challenge for most women. To assess the impact of physical exercise on physical fitness and body composition in women who have completed breast cancer treatment, we designed a personalized program of physical exercises, considering their individual basal physical activity levels. **Methods:** The prospective study included 107 women aged 18–60 years shortly after curative treatment for localized breast cancer. All participants were evaluated for cardiovascular morbidities, body composition, and exercise performance. After careful physical evaluation by a personal physical trainer, each woman was individually oriented on how to perform each exercise correctly and follow the program of nonsupervised exercises on their own at home, either indoor or outdoor. Women were motivated to adhere to personalized aerobic exercises, localized muscular strength/resistance, and flexibility exercises, considering individual capabilities and limitations. Evaluations including body composition, VO2max, and localized muscle resistance were performed preintervention (basal) and after 6 and 9 months of intervention. **Results:** Among all, 25.23% and 44.85% were fat or overweight, respectively, at the study entrance, and 21.49% reported doing physical exercise regularly; 78 women adhered to the training program (72.8%), and 29 chose not to adhere (27.2%). After 9 months of regular and individualized intervention, adherent women showed significantly better results in all variables of body composition and physical fitness: body mass (-4.38±3.67 kg; $p<0.0001$), BMI (-1.62±1.53 kg/m^2; $p<0.0001$), fat percentage (-3.41±3.17%; $p<0.0001$); while in nonadherent women, the parameters did not change significantly: total mass (+2.83±3.21 kg; $p=0.8277$), BMI (+1.16±1.24 kg/m^2; $p=0.8897$), and fat percentage (+1.77±2.73%; $p=0.05$). In particular, those women with binge eating disorders, who had the worst parameters at baseline (preintervention), obtained more noticeable results in reducing their body mass, BMI, and fat percentage ($p<0.05$). This favorable impact of exercise extended to all age groups and did not correlate with previous physical activity ($p>0.05$), as well as it was not influenced by breast cancer characteristics (e.g., histology, stage, and molecular subtypes) or treatment (e.g., mastectomy, axillary surgery, chemotherapy, or radiotherapy) ($p>0.05$). **Conclusion:** Our study reinforces that women in follow-up after breast cancer, regardless of body fatness or fitness, can adopt lifestyle measures to prevent a recurrence, and medical societies should include recommendations to promote physical activity early during surveillance.

Keywords: Physical activity. Breast cancer. Body composition. Lifestyle.