High-intensity interval training for Korean breast cancer survivors: A pilot study

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Background: Recently, growing evidences support that low and moderate intensity exercise can alleviate deleterious effects from breast cancer surgery. Many cancer survivors may participate in exercise program; however, there is a lack of evidence regarding the feasibility and relevance of high intensity interval training for breast cancer survivors. Therefore, this study was conducted to develop a high intensity interval training for breast cancer survivors in Korea and to confirm its feasibility. Methods: Survey was performed on the subjects who had participated in 2015 Pink Ribbon campaign. The survey focused on the overall thoughts regarding the exercise they participated and 84 out of 100 surveys were collected. The program was executed for 4 weeks on 13 subjects whose breast cancer treatment had been terminated for more than 2 years. The exercise program consisted of 10 min-foam roller stretch, 40 min-circuit exercise (3 sessions total, each consisted of 10 exercises and 15 sec resting), and 10 min-cool-down exercise for the total of 60 min twice a week. Results: To examine the feasibility of the high-intensity interval training program, the attendance rate was recorded and the subjects' heart rate during exercise was checked by Polar Team. The exercise was performed at the intensity of 69% of the maximal heart rate and the mean heart rate of 112 bpm of the subjects for 45 min. The physical activity level was increased from the beginning (2303.4 MET·min/week) to the end (3634.7 MET·min/week) of training program according to IPAQ survey, though no statistical difference was found. Furthermore, following the group interview, overall positive responses were reported regarding physical and mental health improvements. Conclusion: This study may be served as base and will be helpful in developing a high intensity interval training for the breast cancer survivors.

Biography

Wook SONG is a full time professor of the Institute of Sports Science and Institute on Aging, Seoul National University, KOREA. His primary research interests include sarcopenia, frailty, myokine, and physical exercise intervention for the elderly and metabolic impairment. His research ranges from cellular/molecular work using animal models studying underlying mechanisms to whole body work measuring functional capacity of human subjects for developing appropriate intervention strategy. Currently, Prof. Song is serving as a vice director of the Institute on Aging in Seoul National University, vice president of the Korean Academy of Sports Science and Exercise Medicine and the Korean Society for Exercise Nutrition, and executive board member of the Asian Nutrition Society for Sport and Health.

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