

THE ACUTE EFFECT of PERFORMED with DIFFERENT Types of Pilates Equipment on Heart Rate Variability During Recovery After Exercise in Sedentary Women

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THESIS ABSTRACT

The aim of this study is to examine the acute effect of exercises performed with different types of pilates equipment on heart rate variability during post-exercise recovery in sedentary women. Fifteen sedentary volunteer women between the ages of 40-45, who declared that they did not have any health problems, participated in the study. The heart rate variability parameters of the exercise performed by the participants with reformer and barrel pilates equipment were recorded with a Polar H10 (Polar Electro Oy, Kempele, Finland) model chest strap. The effects of the interaction between factors on the variables were examined with Two-Way Analysis of Variance for Repeated Measurements. Whether the data of the relevant variables conformed to normal distribution was confirmed with the Shapiro-Wilk test and Skewness (skewness) and Kurtosis (kurtosis) values. In the study, it was observed that there was no significant difference in terms of the acute effect of the heart rate variable between barrel and reformer devices. When looking at the mean RR, significant differences were observed in the main effect of time before exercise, during exercise, during exercise and in all recovery phases ($p < 0.05$). When looked at in terms of LF, significant changes were observed in the main effect of time at 40, which is the last phase of recovery during exercise ($p < 0.05$). Although there were significant differences in the RMSSD, pNN50, HF, LF/HF parameters when the main effect of time was examined, it was determined that there was no significant difference in pairwise comparisons. As a result of the study, no significant difference was observed between pilates machines in their acute effect on heart rate variability during post-exercise recovery. However, it was observed that there were significant changes in the time phases of exercise, which are all phases of pre-exercise, during exercise and recovery. As a result, although reformer and barrel pilates equipment are different, their effects on HRV are the same. Write the application areas of the results of the thesis in maximum 800 characters and in two paragraphs. The entire form should not exceed one page.

APPLICATION AREAS OF THE THESIS RESULTS

Exercises performed with pilates equipment will guide pilates instructors about the appropriate exercise plan and use of equipment for sedentary women.

ACADEMIC ACTIVITIES

Bayram G., Bölükbaşı M.G., Güngör A.K., Vatansever Ş. (2022). Aggression Level Of Athletes Playing Individual Sports: Comparison Of Different Sports Branches. Isarc International Science and Art Research. 28-29 Nisan 2022, (Özet Bildiri).



KEY WORDS

- ✓ Pilates
- ✓ Reformer
- ✓ Barrel
- ✓ Heart Rate Variability
- ✓ Sedentary

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