Bio-Psycho-Social Analysis of the Effect of Superjump Training

Valentina Contrò¹, Jill Cooper², Alessandra Amato², Alessia Sacco², Alessandra Macchiarella², Patrizia Proia²

1. Dipartimento di Scienze Economiche Aziendali e Statistiche, Palermo

2. Dipartimento di Scienze Psicologiche, Pedagogiche e della Formazione, Palermo

Aim. The purpose of this research was to evaluate how Superjump training can influence body composition, blood parameters and psychological aspects.

Materials and methods. Fourteen adult women healthy volunteers were recruited in this study (m \pm DS: age 29 \pm 9.50, weight 63.7 \pm 12.38, height 1.59 \pm 0.06, body mass index 25 \pm 3.67, fat mass% 20 \pm 5.80) and they performed a training protocol lasted 16 weeks, twice a week, 60 minutes per session. We analyzed body composition (body mass index, circumferences, fat mass), blood parameters (red blood cells, hemoglobin (HG), hematocrit, mean corpuscolor value (MCV), platelets, white blood cells, ALTs and ASTs, serum, total protidemy, creatinine, glycemia, triglycerides, total cholesterol, ferritin) and we administered two questionnaires about body selfesteem and behavioural regulation in exercise. Comparison of pre- and post-exercise results shows an improvement in anthropometric and hematochemical parameters.

Results. Statistically significant were: waist circumference (0.0001), tricep skinfold (0.0002), abdominal skinfold (0.005) and fat mass (0.007) as regards body composition; blood glucose (0.0004), total cholesterol (0.02), ALT (0.05) and AST (0.005) and basophil (0.06) concerning hematochemical evaluations.

A positive outcome was also found in psychological assessment and in particular in self-esteem, since the increase of the latter has positively influenced the perception of self image.

Conclusions. The results clearly demonstrated that Superjump is a workout that can improve the individual's bio-psycho-social aspects. It creates a positive psychological reinforcement, crucial to motivating to continue physical activity over time.