

## The Effect of a 12 Week Rhythmic Movement Intervention on Selected Biomotor Abilities on Academy Rugby Players

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**Abstract :** Rhythmic movement, also referred to as “dance”, involves the execution of different motor skills as well as the integration and sequencing of actions between limbs, timing and spatial precision. The aim of this study was therefore to investigate and compare the effect of a 16-week rhythmic movement intervention on flexibility, dynamic balance, agility, power and local muscular endurance of academy rugby players in the Western Cape, according to positional groups. Players (N  $\frac{1}{4}$  54) (age 18.66 0.81 years; height 1.76 0.69 cm; weight 76.77 10.69 kg), were randomly divided into a treatment-control [TCA] (n  $\frac{1}{4}$  28) and a control-treatment [CTB] (n  $\frac{1}{4}$  26) group. In this crossover experimental design, the interaction effect of the treatment order and the treatment time between the TCA and CTB group, was determined. Results indicated a statistically significant improvement (p < 0.05) in agility<sup>2</sup> (p  $\frac{1}{4}$  0.06), power<sup>2</sup> (p  $\frac{1}{4}$  0.05), local muscular endurance<sup>1</sup> (p  $\frac{1}{4}$  0.01) & 3 (p  $\frac{1}{4}$  0.01) and dynamic balance (p < 0.01). Likewise, forwards and backs also showed statistically significant improvements (p < 0.05) per positional groups. Therefore, a rhythmic movement intervention has the potential to improve rugby-specific bio-motor skills and furthermore, improve positional specific skills should it be designed with positional groups in mind. Future studies should investigate, not only the effect of rhythmic movement on improving specific rugby bio-motor skills, but the potential of its application as an alternative training method during off- season (or detraining phases) or as a recovery method.

**Keywords :** agility, dance, dynamic balance, flexibility, local muscular endurance, power, training

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