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**THE EFFECT OF NON-STRUCTURED LEISURE-TIME PHYSICAL ACTIVITY ON
STRUCTURED EXERCISE INTERVENTION IN MEN WITH IMPAIRED GLUCOSE
REGULATION**

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Objectives

The aim of this study was to investigate the effect of intensity and volume of non-structured leisure-time physical activity (LTPA) on physical capacity and body composition responses to structured exercise interventions.

Methods

Overweight or obese middle aged men (n=144; 54.5 ± 6,5 y; body mass index (BMI) 25,1–34,9 kg/m²) with impaired glucose regulation were randomized into a Nordic walking, a power-type resistance training, or a non-exercise control group. Before and after the 12-week intervention period peak oxygen uptake, walking speed, squat jump, countermovement jump, body weight and body composition were assessed. The information on intensity and volume of LTPA was obtained from specific diaries and expressed in metabolic equivalents (MET). Statistical analysis were performed with multiple linear regression analysis on pooled group data (NW + RT + C).

Results

The intensity of LTPA explained independently 10%, 8.8%, and 6.5% of the variance in the change in walking speed, body weight, and BMI, respectively. No other significant associations were found.

Conclusions

The intensity of non-structured LTPA is a significant modulator of the physical capacity and body composition responses to structured exercise intervention.