



Exercise-Mimicking Effects of K-pop Dance on Body Composition and Muscular Strength in Young Female

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ABSTRACT

Background: K-pop dance became one of the most popular dance-genre in all around the world and some of the excellent K-pop dancers are regarded as idols. Their K-pop dancing performances are imitated by their fans, most of whom are mainly women in their late teens to early twenties. K-pop dances consist of multiple weight-bearing movements, such as jumping, upper and lower limb extension, rotation, and flexion. **Purpose:** The purpose of the study was to determine whether the K-pop dancing is an effective physical activity for the improvement of the young female's physical fitness. **Methods:** Among the 70 female collegians recruited, the K-pop group consisted of 18 students who participated in K-pop dance (KPD) 2 hrs·d⁻¹, 3 times·wk⁻¹ for 36 months. Twenty-one students who participated in regular exercise for the same time, frequency, and duration with the KPD group were engaged in regular exercise (EXE). 31 subjects did not participate in exercise. They were classified as the control (CON) group. **Results:** Compared to the CON subjects, fat mass (14.58± 0.87 vs. 17.02± 0.64 kg) and BMI (20.05± 0.43 vs. 22.62± 0.39 kg·m⁻²) were significantly lower in KPD subjects, while muscle mass (20.97± 0.30 vs. 16.51± 0.40 kg), grip strength (22.46± 0.82 vs. 19.81± 0.83 kg), and BMR (1261.41± 11.03 vs. 1212.72 ± 7.24 kcal) were significantly higher. Muscular strength in the EXE group was significantly higher than both the CON and the KPD groups. **Conclusion:** The findings show that performing K-pop dance has exercise-mimicking effects of decreasing fat and enhancing muscle mass, although it has a limited effect on the increase in muscular strength.

Keywords: elderly, combined exercise training, muscular strength

RESULTS

Subjects

Table 1. The Characteristics of Subjects.

	CON (n = 31)	KPD (n = 18)	EXE (n = 21)	P-value
Age (yrs)	20.97 ± 0.41	22.22 ± 1.63	21.76 ± 1.55	0.54
Height (cm)	161.07 ± 5.22	162.83 ± 4.13	162.13 ± 5.27	0.47

All data provided of mean ± SD. CON = Control Group; KPD = K-pop Dance Group; EXE = Exercise Group

K-pop Dance Increases Basal Metabolism

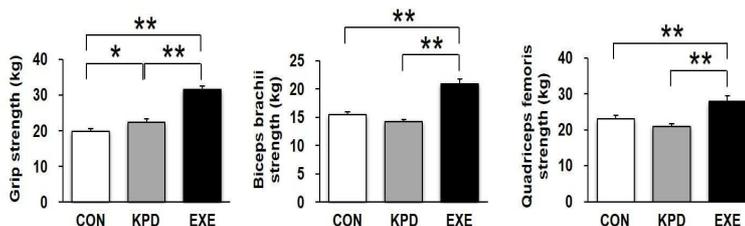


Figure 2. Effects of Regular K-pop Dancing and Exercise on Muscle Mass and Basal Metabolic Rate. Statistical significance was set at *P<0.05 and **P<0.01

K-pop Dance Improved Body Composition

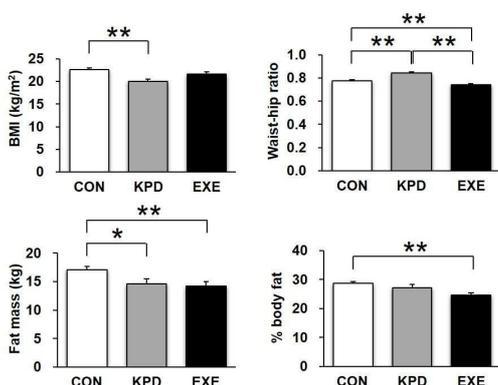


Figure 1. Effects of Regular K-pop Dancing and Exercise on Body Mass Index, Waist- Hip Ratio, Fat Mass and %Body Fat. Statistical significance was set at *P<0.05 and **P<0.01

K-pop Dance Similar to Aerobic Exercise

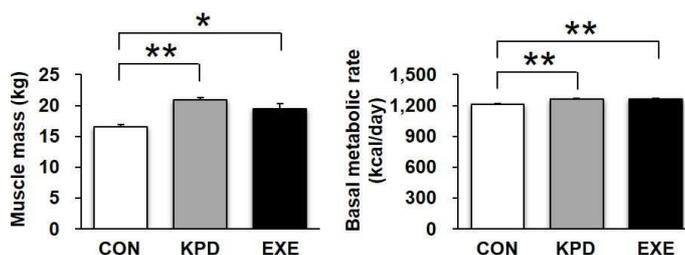


Figure 3. Effects of Regular K-pop Dancing and Exercise on Muscular Strength. Statistical significance was set at *P<0.05 and **P<0.01

CONCLUSIONS

The findings in the present study indicate that regular participation in K-pop dance improved body composition and basal metabolic rate by decreasing fat mass and increasing muscle mass in the young female subjects, although its effect was not as much as the regular strength training exercises.