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Effect of Exercise on the Body Composition of Simple Obesity in China: A Meta-analysis

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Objective To systematically review the effect of exercise on the body composition of simple obesity in China.

Methods We electronically searched databases including CNKI、VIP、WanFang Data、PubMed、Medline、Web of Science databases to collect the studies on exercise therapy for simple obesity from inception to June 2016. Two reviewers independently screened literature, extracted data and assessed the risk of bias of included studies. Then, meta-analysis was performed by using RevMan 5.3 software.

Results A total of 17 papers involving 627 patients were included. The results of meta-analysis showed that:①Exercise significantly ameliorated BMI of obesity children(MD= -2.72, 95%CI[-3.83, -1.61], P<0.00001).②Exercise significantly ameliorated BMI (MD= -3.22, 95%CI[-4.10, -2.34], P<0.00001)、BF% (MD= -4.44, 95%CI[-6.09, -2.79], P<0.00001)、Body Weight(MD= -7.92, 95%CI[-11.28, -4.56], P<0.00001) and waist circumference (MD= -5.01, 95%CI[-8.56, -1.46], P=0.006) of obesity teenagers.③Exercise significantly ameliorated BMI (MD= -3.18, 95%CI[-3.64, -2.72], P<0.00001)、BF% (MD= -0.80, 95%CI[-1.53, -0.07], P=0.03)、Body Weight (MD= -6.56, 95%CI[-7.89, -5.23], P<0.00001)、chest circumference (MD= -4.22, 95%CI[-5.00, -3.45], P<0.00001)、waist circumference (MD= -7.49, 95%CI[-9.19, -5.78], P<0.00001)and hip circumference (MD= -3.68, 95%CI[-5.19, -2.17], P<0.00001) of obesity adults.

Conclusions Exercise can significantly improve the body composition of simple obesity people in China. Due to the limited quantity and quality of included studies, more high quality studies are needed to verify the above conclusion.