THE EFFECTIVENESS OF A MANUAL RESISTANCE VS. A WEIGHT RESISTANCE TRAINING PROGRAM ON BODY COMPOSITION

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ABSTRACT

Previous research conducted that intense resistance training may improve body composition by increasing fat-free mass (FFM), decreasing fat mass (FM), and thus decreasing the total mass of body fat (BF). It has been speculated that in this manner, resistance training may be effective in improving body composition, while short-term programs rapidly result in slight increases in FFM. Previous studies examined the effects of traditional weight training, isometric, isokinetic, and plyometric training programs on body composition. The concept of Manual Training (MRT) in body composition programs was also introduced. The purpose of the study was to investigate the effects of a moderate-intensity and high-volume MRT program and an identical weight resistance training (WT) program on body composition.

PURPOSE: The purpose of this study was to investigate the effects of a moderate-intensity and high-volume MRT program and an identical weight resistance training (WT) program on body composition.

METHODS: Physically active college males (n=45) and females (n=38) were randomly assigned to either the MRT or the WT group. Each training session was comprised of 6 to 9 exercises with two to four sets of 8 to 12 repetitions. Body composition was assessed pre- and post-training by underwater weighing with residual lung volume measurement.

RESULTS: For the MRT females, there was a significant (p≤0.001) improvement in BF, FFM, and FM following training. A similar change was found for the MRT males. For these data, a moderate-intensity and high-volume MRT program and an identical weight resistance training (WT) program on body composition.

SUMMARY OF RESULTS

CONCLUSION:

• For these data, a moderate-intensity and high-volume resistance training program did not elicit an improvement in BF, FFM, or FM for both WT and MRT males.

• Resistance training facilitated an improvement in FFM for both WT and MRT females.

• The MRT program produced positive improvements in BF, FFM, and FM for females.

PRACTICAL APPLICATION

• A moderate-intensity and high-volume MRT program may provide a cost effective alternative training method for improving the body composition of females.

• For males, however, a short-term resistance training program may not provide sufficient stimulus to elicit alterations in the body composition.

• A longer-term adherence to either WT or MRT programs or a greater training volume may be necessary to achieve improvements in body composition in males.

REFERENCES


ACKNOWLEDGEMENTS

The study was supported by The University of Texas at El Paso University Research Initiative.