A STUDY TO COMPARE THE EFFECT OF THRESHOLD INSPIRATORY MUSCLE TRAINER(IMT) DEVICE TRAINING VERSUS CONVENTIONAL TRAINING PROGRAM ON RESPIRATORY MUSCLE STRENGTH IN NON-ELITE HALF MARATHON RUNNERS

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ABSTRACT

The purpose of this study was to find out effectiveness of threshold device training on respiratory muscles in non-elite half marathon runners. After obtaining ethical clearance and informed consent sixty non-elite half marathon runners in the age group of 35 to 55 years of age participating in Mumbai Marathon and training for at least two consecutive years were randomly selected for the study. Athletes were equally divided into two groups of thirty runners each namely as Group 1-Experimental Group (conventional training and respiratory muscle strength training) and Group 2-Conventional Group (conventional training program) respectively for a period of six weeks four times a week. Pre and post intervention respiratory muscle strength was evaluated by recording MIPmax and MEPmax values using Micro RPM. One Sample T-test was employed for pre and post training analysis, revealing significant (p=0.00) increase in post values of MIPmax and MEPmax in both experimental and conventional groups. Independent Sample T-test was employed which revealed significant increase in mean difference of MIPmax (p value 0.001) and MEPmax (p value 0.005) values for experimental group as compared to conventional group signifying comparative increase in respiratory muscle strength i.e. increase in mean difference of MIPmax (23.38%) and MEPmax (15.70%) in experimental group as compared to conventional group with threshold device training program. Respiratory muscle strength training using threshold device can help in inhibiting the metaboreflex which gets activated due to fatiguing respiratory muscles and with this training they can improve their output by taking less time to complete the race or covering more distance easily hence upgrading their race category.