EFFECTS OF A 12-WEEK RESISTANCE TRAINING PROGRAM ON BIOMOTOR ABILITIES OF MALAYSIAN SPORTS SCHOOL ATHLETES

Training is an integral part of any coaching program. Training refers to a systematic process with a long duration of physical and mental exertion to improve an athlete's qualities to produce a high performance. Consequently, any designed training program should prioritize the overall development of athletes. Thus, the primary objectives of training especially for the adolescent athletes should be to obtain a multilateral condition, to build solid foundation, to perfect the techniques of the chosen sport, to improve the specific physical abilities, to learn affirmative needed tactics, to create an effective relationship between the coach and the athlete, to improve biomotor abilities, to monitor the athlete's health status and prevent injuries, and to enrich the athlete's knowledge related to the training. The purpose of this study was to investigate the effectiveness of a 12-week resistance training program on biomotor abilities of Malaysian Sports School athletes. Sixty-four adolescent athletes aged between 13 to 15 years (14.32 ± 0.79) old boys and girls student athletes of the Bukit Jalil Sports School, Kuala Lumpur, Malaysia who were randomly assigned to 2 groups based on sexual maturation status. The experimental group (n=32) performed a resistance training via a 10 station circuit training using medicine ball twice weekly for 12 weeks whereas, the control group (n=32) performed their normal training session for the same duration. All the participants were tested on seven biomotor abilities for pre and post intervention. SPANOVA analysis revealed a significant difference in all the seven biomotor abilities (p<.001) from the pre-test to post-test of the experimental group compared to the control group with a significant level of p<.05. The findings indicated that the 12-weeks resistance training program had effectively elicited a statistically significant effect in improving and enhancing all seven biomotor abilities of the adolescent athletes of the experimental group compared to the control group. In conclusion the designed resistance training program resulted in significant effect in all seven biomotor abilities of the Malaysian Sports School athletes. Therefore the designed resistance training program should be able to assist the Malaysian coaches who aspire to develop adolescent athletes in terms of coaching, training and enhancing the biomotor abilities of athletes.

Keywords: Circuit Training; Adolescent; Sexual Maturation