

Effect of Prior Participation in an Event on Triathlon Performance of Elite Male Triathletes in Sri Lanka

M.K.K. Perera* and L.R.N.D. Weeraratne

*Department of Sports Sciences and Physical Education, Faculty of Applied Sciences,
Sabaragamuwa University of Sri Lanka, Belihuloya 70140, Sri Lanka
mkkperera.kd@gmail.com

Triathlon is a late specialized endurance/transfer sport which consists of three individual events that are completed in a sequential order such as swimming (1.5km), cycling (40 km) and running (10 km). Based on the current practices and evidence in Sri Lanka, most of the elite triathletes may be a former marathoner, swimmer or cyclist. Therefore, there is a scarcity of young triathletes who begin triathlon at the grass root level due to its' less popularity. The prime aim of this study was to identify how physiological parameters and triathlon performance differ due to the effects of prior participation in an event. Twenty elite male triathletes (7 former swimmers, 7 former cyclists, 3 former marathoners & 3 pure triathletes) (age 25.6 ± 2.68 years), weight (58.95 ± 7.27 kg) and height (172.65 ± 4.26 cm)) were randomly selected for this study. The Cooper 12 minutes test, running based anaerobic sprint test & BIA test were performed to identify the mean values of maximum oxygen consumption (VO₂ max), peak power output (PPO) and body composition respectively. ANOVA analysis of data demonstrated that there was a significant impact of prior participation event on triathlon performance (p value – 0.002) & triathletes' VO₂ max capacity (p value - 0.024) & except PPO, Fat Mass, Fat Free Mass & Muscle Mass (p value > 0.05). According to Tukey's Pairwise comparison, it was shown that triathletes whose prior participation event was cycling, or swimming had a significant positive impact on triathlon performance. Furthermore, the triathletes whose prior involvement event was swimming & cycling had significantly higher VO₂ max capacity than marathoners & pure triathletes of the sample. Within the confines of the study, it was revealed that, there was a significant positive impact of swimming and cycling as prior participation events on triathletes' maximum oxygen consumption and their performance.

Keywords: Triathletes, Cycling, Swimming, Sri Lanka