

Estimation of Pre-practice Hydration Status of National Athletes in Sri Lanka

NDJMS Uluwita^{1#} and WKDSA Wickramarachchi¹

¹Department of Sports Sciences and Physical Education, Faculty of Applied Sciences, Sabaragamuwa University of Sri Lanka, Sri Lanka

#janithimsu@gmail.com

In the field of competitive sports, optimal performance is influenced by the physiological well-being of the athletes, where hydration is a key. The study aimed to assess the pre-practice hydration status of national athletes in Sri Lanka. A cross-sectional descriptive research design was employed, with data collected through urine-specific gravity (USG) measurements and a fluid intake questionnaire. Using a multistage sample technique, 89 national athletes (60.67% female and 39.33% male) from both team and individual sports were chosen. Descriptive statistics and Pearson's Chi-square test were used to analyze the data. The results revealed that 51.69% of the athletes were significantly Hypohydrated with a mean USG of 1.036 ± 0.00245 , 31.46% appeared Hypohydrated with a mean USG of 1.024 ± 0.001 and 16.85% of the athletes appeared Euhydrated with a mean USG of 1.0125 ± 0.01398 . The results indicate that there was no association in the pre-practice hydration status of National Athletes in Sri Lanka with gender differences ($\chi^2 = 1.6028$, $P > 0.05$). In women, there was no significant association of menstruation phases (follicular phase and luteal phase) with the pre-practice hydration status ($\chi^2 = 0.41913$, $P > 0.05$). The study highlights the importance of tailored hydration strategies to optimize the health and performance of National level athletes in Sri Lanka.

Keywords: *hypohydration, significantly hypohydrated, euhydrated, electrolytes, gender, menstruation phase, urine specific gravity*