EFFECT OF BODY HYDRATION STATUS ON THE PSYCHOPHYSIOLOGICAL PROFILE OF COLLEGE LEVEL WOMEN BASKETBALL PLAYERS (18–22 YEARS)

Ishu Kataria,1 Priti Rishi Lal,1 S P Sahni2 1Department of Food and Nutrition, Lady Irwin College, New Delhi, India; 2Jindal Steel and Power Limited, New Delhi, India

10.1136/bjsm.2010.078725.137

The effect of body hydration status was assessed on the psychophysiological profile of college level women basketball players (18–22 years). Thirty basketball players and 30 training in a fitness centre, selected via purposive sampling, after screening within pre-determined selection criteria, comprised the study sample. Information on the subjects’ knowledge and practices related to hydration was elicited using a questionnaire. The pre- and postexercise values of psycho-physiological parameters (heart rate, reaction time and electrodermal response); body hydration status (urine specific gravity and urine pH) and perceived exertion during exercise were measured using heart rate monitor, reaction timer and electrodermal monitor; multistix strips and Borg’s scale, respectively. Screening ensured that both groups were not significantly different in their age, body mass index, total body water, physical activity level, total daily energy expenditure, energy intake and intake of important nutrients. Data regarding knowledge and practices showed low awareness and faulty practices in both groups. There was no significant difference in pre-exercise body hydration status and psycho-physiological parameters between both groups. The pre- and postexercise hydration and psycho-physiological parameters were significantly different (p<0.01) in both groups, indicating dehydration and deterioration in psycho-physiological parameters. Post exercise, the basketball group showed significantly higher values of urine specific gravity (p<0.01), urine pH (p<0.05) and heart rate (p<0.05), when compared with the control group; and a positive covariance between urine specific gravity and heart rate, implying that significantly higher levels of dehydration in the basketball
group may have caused deterioration in psycho-physiological response.