

Title : Assessment of dietary intake, fitness level and incidence of injuries in amateur female cricketers aged 18-24 years in Mumbai.

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Keywords : *Female cricketers, fitness, dietary intake, injuries.*

Introduction:

Cricket was known to be played only by men and is now also played by females over the years. This has created interest in many female youngsters to get involved in the sport (1, 2). Besides regular training, nutrition plays a crucial role in improving performance at the sport. Proper nutrition also helps in reducing the incidence of injuries. There is limited research done on female cricketers and their nutritional requirements (2). The present study aimed to assess dietary intake, fitness level and incidence of injuries in amateur female cricketers aged 18-24 years in Mumbai.

Methodology:

30 female cricket players of age 18-24 years (mean age 19.36 ± 1.84 years) were selected by purposive sampling from Mumbai. Anthropometric measurements such as BMI and WHR were taken. A 3-day diet recall and FFQ and a questionnaire on eating behavior, menstrual history and medical history was administered. Eight fitness tests viz., push-ups, curl ups, squats, standing stork blind test, hand to eye coordination test, sit and reach test, hand grip strength and 30 meter sprint test were performed to check their level of fitness.

Result:

Descriptive analysis (mean and SD), bivariate correlation and comparison of means (one sample t test) were used for statistical analysis using SPSS v16 and Microsoft Excel. The mean BMI was 21.4 ± 2.1 kg/m² and WHR was 0.9. Though the BMI was in normal range, the WHR was higher than 0.8 indicating central deposition of fat. All players had regular menses and did not suffer from any episodes of dysmenorrhoea. Female cricketers had excellent upper body strength and abdominal endurance as well as leg strength whereas most players showed poor flexibility. 73% of the players have an average to poor score on the 30 m sprint test indicating poor sprint speed. This could be because of low intake of carbohydrate and potassium ($P < 0.05$). The mean macronutrient intake and micronutrient intake does not meet the RDA requirements except for iron and calcium which exceeds the RDA. A poor intake can not only affect performance at sport, but may have a debilitating effect on the health and development of young girls. The current study showed that 33% got upper body injuries, 7% suffered from lower body injury, 3% had both upper and lower body injury.

Conclusion:

There was no incidence of female athlete triad amongst the female cricketers evaluated in this study conducted in Mumbai. The current study showed that 33% got upper body injuries, 7% suffered from lower body injury, 3% had both upper and lower body injury. Awareness on importance of nutrition is essential in order to improve health and performance and prevent injuries in amateur female cricketers.

References:

1. Koley S, Kashyap K ; An Evaluation of Anthropometric Characteristics in Indian Inter-university Female Cricketers: Sport Science Review, vol. XIX, No. 5-6, December 2010
2. Mustafa F (2013); Cricket and globalization: global processes and the imperial game. Journal of Global History, 8, pp 318341doi:10.1017/S1740022813000247