ABSTRACT

The present study was undertaken to study the impact of food and nutrition security on performance of competitive sports activities among high school players of Dharwad, city, Karnataka. The data was collected under three headings like general background information of the selected sports personnel, baseline information of the selected team games like kabaddi and football for male players, khokho and volleyball for female players. Players were divided into three groups as control, experimental 1 and experimental 2. All the groups were assessed for physical measurements, physical performance, nutrient intake, nutrition knowledge and practice before the intervention. Experimental 1 and 2 groups received nutrition education for 12 contact hours. Real match was arranged between control and experimental group to evaluate the field performance. Later only one experimental group was supplemented with carbohydrate rich snack (Carbohydrate–72 g) three days before the competition. On the day of competition experimental group received a carbohydrate (6.75%) electrolyte beverage before, during and after the competition. Physical performance was evaluated using AAHPERD physical fitness test.

The findings of impact of nutrition education revealed that overall nutrition knowledge level increased significantly by 26% and 22% in male and female players where as practice was improved only 10% and 9% respectively. The knowledge improvement was better than practice. The food consumption pattern and food intake significantly improved and increased due to nutrition intervention. Carbohydrate intake after the nutrition education was above 65% in both the players. This was further improved due to carbohydrate supplementation to 70%, which was significantly more than control group. The physical performance results revealed significant improvement in the selected fitness tests like strength, agility and endurance. There was significant improvement in the game performance as evaluated by coaches in all the experimental groups than in control groups and experimental groups had won the match. Self-evaluation by players showed intervention program was useful for their sports performance. The study concluded that nutrition education and carbohydrate supplementation improved the food and nutrition security in turn sports performance of selected team game players.