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Research Paper

Impact of Nutrition Communication Package on Basic Nutrition Knowledge of Adolescent Football Players.

Home Science

KEYWORDS : Nutrition education, nutrition knowledge, football, nutrition communication package.

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ABSTRACT

The sports players often lack the nutrition knowledge to make wise dietary choices. This study was formulated to assess the impact of nutrition communication package on basic nutrition knowledge of football players. 320 football players were selected from various football associations across Mumbai and Indore using purposive sampling method. The mean age of subjects was 15.5+0.5 years. The players were then randomly divided into equal experimental and control group. Their knowledge was assessed using a questionnaire. Based on the gaps in nutrition knowledge, a nutrition communication package was formulated and imparted to the experimental group, control group did not receive nutrition education. At baseline, percentage mean score of experimental group (EG) and control group (CG) was observed to be low; 38.50% and 39% resp. The percentage mean score of experimental group post nutrition education increased significantly to 88.63% while CG showcased no change in knowledge. The difference in means of the experimental group at baseline and post intervention was significant at p<0.01. Nutrition Communication Package had a positive impact on the nutrition knowledge of football players and can be considered as an ideal training material for Football players.

Football is a sport characterised by periods of moderate intensity activity interspersed by short periods of high intensity (sprinting) activity. The game is played at a fast pace with short bursts of high intensity sprints, with many changes in direction, sprinting, accelerating, decelerating, tackling, dribbling and passing interspersed. The energy requirements of a sports player are very different from rest of the population. It's the combination of right kind of food at the right time in right amounts that ensures victory. The sports players often lack the nutrition knowledge to make wise dietary choices. This study was formulated to assess the basic nutrition knowledge of football players, formulate nutrition communication package and to assess the impact of nutrition communication package on basic nutrition knowledge of football players.

Method :

320 football players were selected from various football associations across Mumbai and Indore using purposive sampling method. Subjects receiving football training thrice a week for at least 45 minutes, has played a minimum of two tournaments in the past one year and is currently playing in under-17 category were included in the study. Subjects who have received a formal training in nutrition or have been consulting sports nutritionist within the past one year were excluded from the study. The mean age of subjects was 15.5+0.5 years. The players were then randomly divided into equal experimental and control group. Based on scientific knowledge and recent research in the field of sports nutrition, the basic nutrition knowledge of football players was analyzed using a 5- item questionnaire, with questions pertaining to healthy balanced diet, meal pattern and frequency, meal planning principles and food groups. A score of one was given to each correct answer and a score of zero was given for each incorrect answer. Based on the gaps in nutrition knowledge, a nutrition communication package was formulated. This nutrition communication package was imparted as an intervention to the experimental group, control group did not receive nutrition education. Basic nutrition knowledge was imparted using various a/v aids, power point presentations, leaflets, fact sheets and was delivered through focus group discussions, activities and individual counseling. The various topics covered included the basic understanding of a healthy balanced diet, understanding the concept of portion control along with variety in the diet and importance of each and every food group. The program was conducted in English as well as Hindi to ensure effectiveness. These nutrition workshops were held for a period of six months and their nutrition knowledge was analysed post completion of the package. Statistical analysis was done using Mean, Standard deviation and Percentages. Significance level was calculated using Paired T Test.

Results and discussions:

The mean age of football players for both experimental and control group was 15.5+0.5 years. At baseline, percentage mean score of experimental group (EG) was observed to be 38.50% and that of the (CG) control group was 39%. Interestingly, the percentage mean score of experimental group post nutrition education was observed to be 88.63% while that of control group showcased no change in knowledge when compared to baseline and was observed to be 39.25%. The difference in means of the experimental group at baseline and post intervention was significant at $p<0.01$. Table 1 reveals the percentage mean scores on basic nutrition knowledge of Experimental and control group at baseline and post intervention of nutrition communication package to the experimental group.

Table 1: Percentage mean scores on basic nutrition knowledge of Experimental and control group at baseline (B) and post intervention (P)

Categories	Experimental Group		Control Group	
	B	P	B	P
Basic Nutrition Knowledge	38.5	88.63	39	39.25
Healthy Balanced diet	42	92.5	45	45
Moderation	40	91	42	43
Meal Pattern	34	84	33	33.5
Meal Principles	36	89	34	34.5
Food Groups	38	86	40	40

As evident from table 1, 42% EG and 45% CG were knowledgeable on healthy balanced diet. 58% EG and 55% CG could not correctly analyze the meaning of healthy balanced diet. Post program the percentage mean nutrition knowledge increased to 92.5% while there was no change in the level of knowledge of CG. Nutrition communication package emphasized that 'Eating in moderation is the key to healthy living' and this gain in knowledge was reflective in the score of EG with a mean nutrition knowledge of 91% post intervention as compared to 40% at baseline. There was no change in the level of knowledge of CG. 34% of the EG and CG believed that a sports players should have a 6 meal pattern whereas 36% and 30% of the EG players incor-

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rectly selected 2 and 3 meal pattern. Post education their knowledge improved and the percentage mean scores were observed to be 84%. 36% of EG and 34% CG correctly identified Variety, Balance, Adequacy and Portion control, all being important factors to be considered in order to have a healthy balanced diet. Percentage mean scores in EG increased to 89% as the knowledge of the players improved. Only 38% EG and 40% CG could correctly identify the various food groups and their importance. The gap in their understanding was reduced using an effective nutrition communication package for EG and their knowledge improved significantly to 86%. The players revealed coaches and parents as their source of knowledge along with magazines, internet and newspaper articles. Players agreed that they require specialized nutrition strategies and supported the need for nutrition communication package to help them achieve success.

Assessment of athletes nutrition knowledge is important for the development of effective athlete nutrition-education programs (Raymond-Barker et al., 2007). Pei and Wan (2012) conducted a brief review on the studies showcasing the effectiveness of nutrition education interventions on college students and suggested that significant and beneficial changes in dietary habits have been found for college students after the implementation of nutrition interventions via various techniques. Wali (2013) suggested compared to baseline, at the end of the study, the intervention group had statistically significant increased overall, macro- and micro-nutrient-related nutrition knowledge . Similar results were suggested by Supriya and Ramasawami (2013), Torres-McGehee et al. (2012), Heaney et al, (2011). Lack of basic nutritional knowledge may have profound implications on food choices, performance, and overall health of athletes. Overall, the change in nutrition knowledge scores indicated that nutrition education delivered in a small group setting and reinforced at the training table meal significantly increased the nutrition knowledge scores of collegiate football players (Wali,2013). Supriya and Ramasawami (2013) suggested the main source of nutrition information was from coaches (56%) and magazines (30%). KAP score demands nutrition education to be implemented for the athletes to have a better physical performance.

Conclusion:

The nutrition knowledge of football players was low and this comprehensive Nutrition Communication Package had a positive impact on the nutrition knowledge of football players and can be considered as an ideal training material for Football players.

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