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# Impact of nutritional awareness of sport persons in Allahabad district

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## ABSTRACT

The good nutrition is very important for the beginner in the sports as during their sports activity, nutrition needs are raised for successful performance due to their altered physiological and metabolic responses with internally affects their life style. Sport person received most of their nutritional knowledge from parent and coaches which may be incorrect due to lack of nutritional awareness. This lack of accurate information may lead to reduced performance of sport persons due to poor food choices and the resultant nutritional inadequacies. The present study was designed with main objectives, to develop nutrition education material for creating awareness, to assess the impact of ICT on the nutritional awareness of sport persons. Two hundred sports persons (18-26years) were selected through the random sampling method from two different universities situated in Allahabad district, Uttar Pradesh. Sports person's nutritional awareness was assessed by imparting nutritional awareness. Pretested schedule was used in order to collect data from the respondents. The collected data were statistically analyzed. The study showed the sports person had lack of nutritional knowledge before intervention but it was improved after nutritional awareness intervention programme.

**Key Words :** Nutritional knowledge, Nutritional awareness, Sports person

## INTRODUCTION

Healthy food choices and adequate nutrition are essential in any adult's life, but are especially important for those involved in sports. There is an increased energy demand for those involved in sports; however, most sports person do not adequately meet all nutrient recommendations (Croll *et al.,* 2006). Sports nutrition education is necessary to understand proper fueling before, during, and after sporting events and to avoid illness and injury. Despite the increased need for nutrition education for athletes, to date there is a limited amount of research in this area (Nemet and Eliakim, 2009). Several studies have shown that increased energy demands are not being properly met in sports individual. Sports players' energy demands are increased and vary based on gender and activity level (Purcell *et al.,* 2013). It

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is important that sports person understand that their energy needs will be different based on age, growth rate, and level of activity, and it is vital to educate sports person on these increased energy needs to avoid deficiencies. (Purcell *et al.,* 2013). Like adults, adolescents struggle with the same environmental factors that influence nutrient intake: lack of time, travel, and body image (Croll *et al.,* 2006). Some athletes, especially female athletes, tend to have inadequate dietary practices due to their desire to be lean. This desire conflicts with the fact that their energy needs are increased not only for their sport, but also for their growing bodies. Inadequate nutrient intake can lead to decreased sports performance (delayed recovery and inability to adapt to training stimulus) as well as health problems (depressed immune systems and problems with reproductive function). Several studies have shown that female sports person have inadequate intakes of calcium and iron (Nemet *et al.,* 2009). Both of these micronutrients are necessary to support proper body functions and normal growth. A diet without adequate calcium and iron can negatively affect the reproductive system and bone development. Calcium is necessary for proper bone development and maintenance, normal muscle contraction and enzyme activity especially during adolescence (Purcell, 2013). In addition, differences in race, cultural background, and type of sport can lead to different nutritional practice. This further demonstrates the importance for nutrition education and more specifically in the sports population.

## METHODOLOGY

A cross sectional design was used in this study among sports person. The participants of the study were 200 sportspersons aged between 18-30 years selected through the random sampling method. The sports person was selected based on their willingness to participate in the study. Pretested schedule was used in order to collect data from the respondents. Data regarding general profile of respondent was collected using the first part of the schedule. Knowledge test Performa was prepared to assess the knowledge level of the sports person. A film strip was developed for imparting nutritional awareness to respondents. After the exposure of communication material a post test was taken and comparison between score obtained in pre and post test was taken and comparison between score obtained in pre and post test by the respondents was decide the impact of nutritional awareness created through communication material among the target group.

The collected data was summarized, tabulated, processed and analyzed with the help of chi square applied on data.

## RESULTS AND DISCUSSION

**Socio-demographic information of the selected respondents :**

It is evident from the Table 1 about 76 sports people (38 %) were between the ages of 18-20 years, 81 sportspeople (40.5 %) were between the age of 21-23years and 43 sportspeople (21.5 %) were between the ages 24-26 years. Data related to gender of the respondents is presented in the Table 1, it is quite clear that out of the total respondents investigated for this study, overwhelming majority (69 %) of them were males whereas about 31 per cent were found to be females. Maximum numbers of the respondents (58.5

**Table 1 : Distribution of sports person by socio-demographic profile**

| Sr. No. | Particulars | N=200 | Percentage (%) |
|---|---|---|---|
| 1. | **Gender** | | |
| | Male | 138 | 69 |
| | Female | 62 | 31 |
| 2. | **Age (years)** | | |
| | 18-20 | 76 | 38 |
| | 21-23 | 81 | 40.50 |
| | 24-26 | 43 | 21.5 |
| 3. | **Religion** | | |
| | Hindu | 117 | 58.5 |
| | Muslim | 58 | 29 |
| | Christian | 25 | 12.5 |
| 4. | **Education (appearing)** | | |
| | Graduation | 115 | 58 |
| | Post Graduation | 83 | 41 |
| | PhD. | 2 | 1 |
| 5. | **Hostler/ Days scholar** | | |
| | Hostler Scholar | 103 | 65 |
| | Days Scholar | 70 | 35 |
| 6. | **Nature of family** | | |
| | Joint family | 70 | 35 |
| | Nuclear family | 130 | 65 |
| 7. | **Occupation of family** | | |
| | Government service | 87 | 43.5 |
| | Business | 101 | 50.5 |
| | Any other | 12 | 6 |
| 8. | **Family income group** | | |
| | High income (above 50000 rupees/month) | 34 | 17 |
| | Middle income (20000 – 50000 rupees per month | 153 | 76.5 |
| | Lower income (below 2000 rupees per month) | 13 | 6.5 |

%) were Hindus and 29 per cent were Muslims and 12.5 per cent were Christians. Among the 200respondents 58 per cent sports person were studying in under graduate level, 41 per cent sport person studying in post graduate level and 1 per cent sports person studying in Ph.D. level. Maximum respondents 65 per cent were hostler and just 35 per cent were day's scholar. Maximum number of respondents (50.5%) family occupation was business, 43.50 per cent family occupation was government service and 6 per cent family occupation was any other sector. It was revealed that 65 per cent respondents lived in nuclear families whereas 35 per cent lived in joint family system. Maximum sports person, *i.e.* 76.5 per cent, belonged to the family of middle income group, 17 per cent, belonged to the family of high income, 6.5 per cent, belong to the family of lower income group.

Table 2 shows the distribution of respondents according to their sports and it was found that maximum respondents were cricketers (18 %) followed by Hockey players and foot ball

**Table 2 : Frequency distribution of the respondents according to their participation in various sports**

| Name of sport | N=200 | Percentage (%) |
|---|---|---|
| Cricket | 36 | 18 |
| Football | 31 | 15.5 |
| Volley ball | 20 | 10 |
| Hockey | 31 | 15.5 |
| Basket ball | 17 | 8.5 |
| Badminton | 16 | 8 |
| Running | 23 | 11.5 |
| Boxing | 15 | 7.5 |
| Kabddi | 11 | 5.5 |
| Total | 200 | 100 |

players which were 15.5 per cent, 11.5 per cent respondents were runners, 10 per cent respondents were volley ball players, 8.5 per cent respondents were basket ball players, 8 per cent respondents were badminton players, 7.5 per cent respondent were boxers and 5.5 per cent respondents were playing kabaddi.

**Nutritional awareness status of the respondents :**

The Knowledge Test Performa contained 10 questions related to sports nutrition. Each question carried 5 marks, and scores were given for the nutritional knowledge of the respondents based on their answers to the questions in the given questionnaire. The maximum score was fifty. The scores obtained were classified into five groups and they are: 1-10 (very poor), 11-20 (poor), 21-30 (fair), 31-40 (good) and above 40 (very good). The Pre-knowledge test Performa was divided into five parts as mentioned. After calculating the results of the respondents, it was found that 23 per cent of them belonged to very poor class which was having very less knowledge about the sports nutrition. Then 26.5 per cent of them belonged to poor class. 29.5 per cent of them belonged to fair class. 17 per cent of them belonged to Good class. And lastly just 4 per cent belonged to very good class. This score indicates their poor knowledge status about nutrition and the need for nutrition awareness on sports nutrition. The scoring procedure helped to identify the target group for the nutrition awareness intervention program. The Post- Knowledge test Performa reflected the resulted which was very much expected. After the intervention program on sports nutrition, there was a gradual increase in the performance of the respondents. And there result was also divided into five parts as earlier, in which only 6.5 per cent of them now belonged to very poor class having very less knowledge. Then 10.5 per cent of them belonged to poor class. 17.5 per cent of them belonged to fair class. But the improvements were now reflected in the group Good where there are now 34.5 per cent respondents as compared to early. And lastly 31 per cent of respondents showed growth and were placed in very good class now having far better knowledge about sports nutrition.

Table 3 shows that the impact of nutritional awareness on the nutrition knowledge of sports person, it was found that the percentage of the respondents having very poor knowledge

**Table 3 : Impact of nutritional awareness on the nutrition knowledge of sports person**

| Knowledge Category | Pre exposure | | Post exposure | |
|---|---|---|---|---|
| | N | % | N | % |
| 1-10 Very poor | 46 | 23 | 13 | 6.5 |
| 11-20 Poor | 53 | 26.5 | 21 | 10.5 |
| 21-30 Fair | 59 | 29 | 35 | 17.5 |
| 31-40 Good | 34 | 17 | 69 | 34.5 |
| >40 Very good | 8 | 4 | 62 | 31 |
| Total | 200 | 100 | 200 | 100 |

The chi-square statistic is 91.9735. The *p*-value is < 0.00001. The result is significant at $p < .05$.

was reduced from 23 per cent to just 6.5 per cent after the nutrition awareness intervention. It was also found that there was reduced poor knowledge from 26.5 to 10.5 and fair knowledge category was also reduced from 29 to 17.5, 17.5 per cent increase in the good knowledge category and 27 per cent increase in the very good knowledge category. So from the above data it is concluded that the intervention program helped the respondents immensely in enhancing their knowledge about sports nutrition. It is observed that the knowledge on sports nutrition among the sports person was increased after the nutritional intervention. Henceforth the association between nutritional intervention and gain in knowledge is statistically significant and it is approved.

## Conclusion :

It is concluded that the sports person have lack nutrition knowledge before imparting nutrition awareness. A nutritional awareness intervention was planned with the help of flim strip. Nutrition awareness intervention has definitely created awareness among the selected sports person which would in long run help to improve their nutritional status as well as their efficiency during sports activity.

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