

Evaluation of Nutritional Knowledge of Cricketers in Surat City - A Survey Study

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Abstract: ***Introduction:** Nutrition is crucial for achieving high levels of success in sports and athletics, in addition to other variables like motivation, skill, techniques, commitment, physical fitness, and training. According to studies, athletes are generally uninformed about nutrition, healthful food options, the elements of a well-balanced diet, and how nutrition affects performance. The main purpose of this study was to identify the nutritional knowledge among cricketers. **Setting and Design:** A cross-sectional study was carried out in different stadiums and cricket clubs of surat city. **Methods:** One hundred cricketers, aged between 15-45 years were included in this study based on inclusion and exclusion criteria. **Abridged Nutrition for Sport Knowledge Questionnaire (ANSKQ)** was circulated as Google form for data collection. **Result:** The result of this study shows that the Nutritional Knowledge of Cricketers of Surat city is poor. On the premise of outcome acquired, nutritional knowledge of subjects were differentiated into 4 categories in which 0-49% comes under poor nutritional knowledge. All the participants in our study come under aforementioned category (0-49%). Hence the finding of this study revealed that all 100% of participants have poor nutritional knowledge. **Conclusion:** In conclusion, Cricketers of Surat city have poor Nutritional Knowledge and may benefit from increased nutrition education and training.*

Keywords: Nutrition knowledge, Sports nutrition, Knowledge questionnaire, Cricket players, Survey, Dietary practices

1. Introduction

Performance and diet are strongly related in sports. Dietary intake provides the nutrients and energy needed to satisfy training demands, support immunological function, and allow tissues to adapt and grow. The use of dietary techniques to postpone or avoid performance declines due to exhaustion or dehydration is prioritised during competition⁽¹⁾. Any physical training programme must include nutrition as a key element. For people who are active, the key dietary objective is to have enough nutrients to improve their health, fitness, or athletic performance. This is crucial to develop long-term healthy eating habits in addition to helping to enhance performance. Optimal diet improves physical activity, sports performance, and exercise recovery. Young athletes' nutritional requirements are greater due to their increased physical activity and growth. A mix of factors, including training, body composition, and nutrition, contribute to optimal athletic performance⁽²⁾.

Prior to now, only elite athletes were concerned about the importance of good nutrition for their performance; however, most athletes are now more aware of the necessity of nutrition as a crucial component of training⁽³⁾. Sports nutritionists and other professionals that interact with athletes, such as coaches and trainers, frequently take on the role of educators. The assessment of nutrition knowledge offers a way to track development over time, measures the efficacy of the education given, and makes it easier to tailor nutrition education, especially in group settings⁽¹⁾.

Establishing a carefully considered training regimen that can be quickly modified when unique circumstances arise is of utmost importance for cricket players (for example, changes to training load, changing body composition goals, or special competition needs)⁽⁴⁾.

Athlete performance is greatly influenced by nutritional knowledge and the relationship between different socio-demographic factors. Athletes' performance and health may be influenced by diet, as well as by having adequate nutrition information. Both the general population and athletes have been shown to have a positive relationship between nutrition education and dietary quality, though it has been challenging to quantify this relationship due to the scarcity of validated instruments for this purpose⁽¹⁾. Inadequate nutrient intake affects athletic ability and creates new health issues. Education on sports nutrition is required to stay healthy, prevent injuries, and fuel correctly before, during, and after a sporting event⁽³⁾.

Nutritional practices vary as a result of differences in culture, race, religion, economic position, and style of sport. However, a number of outside factors (such as a hectic timetable, travel, and food culture) also prevent athletes from following the necessary dietary practices. Knowledge of nutrition also affects attitudes and dietary habits⁽⁵⁾. Despite learning a little about nutrition from their usual textbooks, adolescent athletes frequently rely on their coaches for advice. The reliance on online searches for good diet and nutrition is increasing; however it can be challenging to distinguish between reliable information. Inadequate instruction in food and nutrition can be harmful if coaches and players are misinformed about it⁽³⁾.

Without a doubt, a healthy diet will help to sustain regular, intense training while lowering the risk of illness or injury. To be healthy and perform effectively, it's important to consume the proper quantity of energy and nutrients⁽⁶⁾. Hence the main aim of this study was to identify the nutritional knowledge among cricketers.

2. Methodology

A cross-sectional study was conducted using 100 cricketers with an age 15-45 years from different stadiums and cricket clubs of surat city. All the participants should be guided by coaches and should able to speak, read and understand basic English.

Outcome measure:

The Abridged Nutrition for Sport Knowledge Questionnaire (ANSKQ) was used in this study to assess the nutritional knowledge in the Cricketers. The A-NSKQ has 37 items that assess general (n = 17) and sports (n = 20) nutrition knowledge (NK). Test-retest reliability was confirmed (r = 0.8, P < 0.001 [general] and r = 0.7, P < 0.001 [sport]). Construct validity was demonstrated (nutrition students = 77% versus non-nutrition students = 60%, P < 0.001 [general] and nutrition students = 60% versus non-nutrition students = 40%, P < 0.001 [sport]).⁽⁷⁾

Procedure:

Samples were taken from various cricket clubs and stadiums of Surat city. Coaches and athletes from various stadiums and clubs were contacted physically and the background and purpose of the study was explained to them. Questionnaire

in the form of Google form were passed to the coaches and athletes and they were asked to fill the form fulfilling our selection criteria. Prior consent was taken from the academy and stadium's committee as well from the participants to be a part of the study.

Statistical Analysis:

The demographic data of the participants was analysed using frequency analysis as data were in categories. To check normal distribution of data, Shapiro-Wilk test was used. According to it, data were normally distributed, so Parametric test was employed. Statistical analysis was performed using IBM SPSS Statistics version 29.0. The level of significance were kept "p < 0.05".

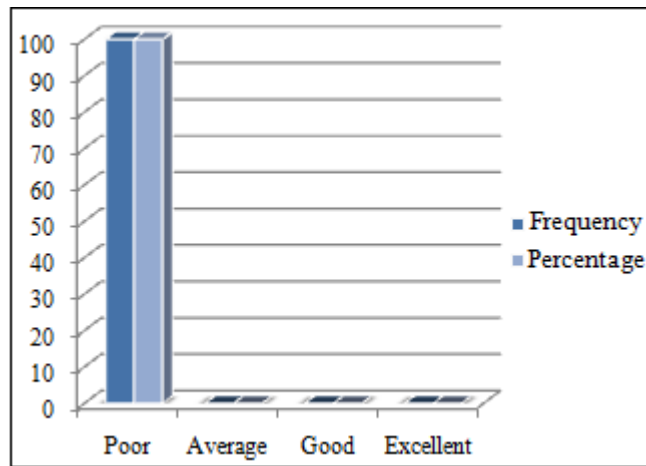
3. Results

The present study included 100 cricketers in which 89 were male and 11 were female with age ranging from 15 to 44 years. Table 1 shows characteristics of participants by using frequency and percentage. The differences in nutritional knowledge between different groups of sports experience and sports frequency. The knowledge of participants were categorize into 4 categories:

Knowledge categories	Percentage
Poor knowledge	Between 0 and 49%
Average knowledge	Between 50 and 65%
Good knowledge	Between 66 and 75%
Excellent knowledge	Above 75%

Table 1: Demographic Data of Participants (n=100)

Characteristics	Groups	Frequency	Percentage
Gender	Male	89	89%
	Female	11	11%
Age (Years)	15-24	86	86%
	25-34	11	11%
	35-44	03	3%
Sports year of experience (Years)	0-1	16	16%
	2-3	49	49%
	4-9	33	33%
	>10	2	2%
Sports Frequency (times/week)	1-2	18	18%
	3-5	47	47%
	>5	35	35%
Smoking	Yes	0	0%
	No	100	100%
Nutrition Consultation	Yes	0	0%
	No	100	100%
Nutrition Training	Yes	0	0%
	No	100	100%



Graph 1: Shows Nutritional Knowledge is divided into 4 categories.

Table 2: Differences in nutritional knowledge among different categories of sports frequency

Sports Frequency	Mean Square	Frequency	Significance (p)
Between groups	2.723	1.065	0.399

Table 3: Differences in nutritional knowledge among different categories of sports years of experience

Sports Years	Mean Square	Frequency	Significance (p)
Between groups	3.284	0.386	0.965

4. Discussion

The aim of this research is to assess and analyze the nutritional knowledge in cricketers. Out of 100 participants 89 of them were males and 11 were females. Age criteria to participate in our study ranged from 15-44 years, in which the age range of 15-24 years' participation was highest.

To the best of the authors' knowledge, this research uses a suitable, validated sport nutrition knowledge questionnaire to evaluate the nutritional knowledge of cricket players in Surat city. On the premise of outcome acquired, nutritional knowledge of subjects were differentiated into 4 categories in which 0-49% comes under poor nutritional knowledge. All the participants in our study comes under aforementioned category (0-49%). Hence the finding of this study revealed that all 100% of participants have poor nutritional knowledge.

Nour Amin Elshahry et al. in a cross-sectional survey mentioned the reasonable explanation for relatively poor Nutritional knowledge scores is that participants may lack of access to nutrition professionals⁽⁵⁾.

Similar findings were reported by Trakman et al. that nutrition consultations may (paradoxically) not lead to better nutrition knowledge because sports nutrition is complex, and requires professionals to undergo specialised training and education, which not all professionals providing advice to athletes will have done⁽⁸⁾.

In our study there is no significant difference between Nutritional Knowledge and Sports frequency, and sports years, which contradicts, Nour Amin Elshahry et al. 's study which stated that BMI, nutrition training, general education level, and frequency of training for sport significantly affected odds of achieving average, good, and

excellent total nutrition knowledge, relative to poor total nutrition knowledge⁽⁵⁾.

We discovered that male and female cricketers of Surat city from a variety of institutions and sports disciplines exhibited low sport nutrition knowledge, putting them at risk for poor dietary intakes that could have a detrimental impact on training, recovery, and performance.

5. Limitations

- 1) There were less female participants in the study in comparison to male participants.
- 2) There is unequal distribution of participants in BMI categories.
- 3) Given that the questionnaire was distributed online, "cheating" cannot be completely ruled out although is unlikely given the poor NK scores.
- 4) We used a convenience sample, and while we could tell how long players had been playing sports, we were not able to conclude the sample based on the level of competition played.

6. Conclusion

From this study, we concluded that cricketers of Surat city (100%) have below average nutritional knowledge and this will affect their nutrient intake which will eventually affect their athletic performance. Our study suggests that Cricketers of Surat city need nutritional training or nutrition education to improve their nutritional knowledge. Future studies can focus on, priorly giving nutritional training or nutritional education to athletes, which may give proper assessment of nutritional knowledge in athletes and hence, can check the impact of nutrition education on their nutritional knowledge.

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