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A Survey On Male And Female Athletes In Pakistan: Association Between Nutrition Status And Physical Fitness

Habib Ullah, M.Phil Scholar Isra Institute of Rehabilitation Science Isra University, Islamabad.

Kainat Ameer, Lecturer Isra University Islamabad, Campus.

Abdul Baqi Panhwar, Incharge Sports, The Shaikh Ayaz University, Shikarpur.

Muhammad Iftikhar, Ph.D Scholar Health, Physical Education and Sports Sciences, University of Karachi.

Aneeba Sadiq, Senior Lecturer Isra Institute of Rehabilitation Science Isra University, Islamabad.

Fehmida Ayub, Lecturer, Department of Health and Physical Education Government College for Women University, Faisalabad.

Alia, M.Phil Scholar Isra Institute of Rehabilitation Science Isra University, Islamabad.

Muhammad Touqeer Awan, M.Phil Scholar Isra Institute of Rehabilitation Science Isra University, Islamabad.

ABSTRACT: Purpose of this particular study was aimed to find out the Physical Fitness and nutritional status of Pakistani athletes. For attainment of desired results and findings researchers selected 130 athletes of both genders from Pakistan. Male and female athletes were equal in number and they were randomly selected for study. Age of participants varied between 18 to 27 years. Injured athletes and coaches were excluded from the study. In this study two scales were used to collect data, first is physical fitness tests (Back ward throw with Medicine ball 2 kg, Speed Test 30 meter, Single leg hop three step test, Agility T test, Endurance test 800 meter) and the second scale “Pre camp Nutritional status questioner”. Collected data was analyzed using the statistics packages for social sciences 17; mean, standard deviation and p values were calculated. Individual Item Analysis was

done for individual item analysis and t-test was applied to compare males and females fitness level and nutrition status. Researchers concluded that objectives were supported by the results of the study. There is significant association between nutrition status and physical fitness among Pakistani athletes.

INTRODUCTION: The supply of food for living is called Nutrition. In scientific way nutrition is consuming and utilizing of foods. Nutritionist accelerates his/her marketing efforts to student athletes, work closely with athletic trainers to provide sound nutrition information and provide services to meet the needs of athletes [1]. In the field of sports it is not possible to get result without physical fitness. The absence f adequate nutrition, players cannot improve their physical fitness. Nutrition is the most important part of athletes or teams performance at national or international level but unfortunately in Pakistan this culture is not developed at any level excluding Cricket so athletes are not well aware about the importance of nutrition or nutritionist. Many athletes have poor economical background so they cannot afford the required diet expenditure. The time of nutrition, pre and post competition meals are also different. Likewise the nutrition of hockey players and marathon athlete is also different but unfortunately our athletes, coaches and sports organization are not proper adopt scientific methods, they are following the traditional way of meal. The other hand bad eating habits like junk food, inappropriate meals are also common in Pakistan athletes. They are also not aware about the recovery, rest etc.A qualified sports dietician with certified from the Board Certified Specialist in Sports Dietetics in the United States advice individual nutrition direction after a comprehensive nutritional assessment[2]. A research was conducted to assess the nutrition value and its importance for athletes with the analysis of American Dietetic Association, the results showed that athletic performance, physical activity, and recovery from exercise are improved through best nutrition[3]. Carbohydrate required for an athlete per kilogram of the body mass, but should be fine-tuned with individual consideration of total energy needs, feedback from training performance and specific training needs. It is important to decide nutrient-rich carbohydrate foods and add other foods to recover meals and snacks to provide a source of protein and other nutrients. This nutrient facilitates in other recovery processes [4].The carbohydrate intake during exercise improves performance during prolonged time and endurance capacity[5]. Positive relationship between maximal aerobic capacity, physical strength, and performance results in the elite soccer league players[6].Highest performance to use protein supplements are advised by strength trainers.

OBJECTIVES OF THE STUDY:

1. To know the perception about the nutritional status of Pakistani athletes.
2. To explore the level of Physical Fitness status among Pakistani athletes.
3. To determine the association between nutrition status and physical fitness among Pakistani athletes.

METHODOLOGY:

For attainment of desired results and findings researchers selected 130 athletes of both genders belongings from Pakistan, out of 130, (55.38%) were from Punjab, (22.31%) from KPK, (17.69%) from Baluchistan and 6 (4.62%) from Sindh. Male and female healthy athletes were equal in number and they were randomly selected for cross sectional study. Age of participants varied between 18 to 27 years. Management and support staff of athletes were excluded from the study. In this study after collection of General demographic (age, gender, sports played level)two scale were used to collect data, first is "physical fitness tests (Back ward throw with Medicine ball 2 kg, Speed Test 30 meter, Single leg hop three step test, Agility T test, Endurance test 800 meter) and the second scale "Pre camp Nutritional status questioner". Collected data was analyzed using the statistics packages for social sciences (SPSS 17); mean, standard deviation and p values were calculated. Individual Item Analysis was done for individual item analysis and t-test was applied to association between nutrition and physical fitness among elite athletes. Results obtained after analysis have been presented with help of tables. Level of probability was adjusted at .05 for statistical significance.

RESULTS:

	Fitness status of Athletes				
Test	Backward throw test	Speed Test	Leg Strength Test	Agility Test	Endurance Test
N	130	130	130	130	130
Mean	10.27	4.82	6.98	11.74	3.18
Std. D	2.21	0.44	0.91	1.21	0.07

Table showed that the physical fitness status of the participants, Backward throw with 2-kg medicine ball measure in meters, 30 meter Speed Test measure in sec, Leg Strength Test measure in meters, Agility T Test measure in sec,800 Meter Endurance Test measure minutes per sec.

Nutritional status of Athletes				Association between Nutrition and physical fitness				
	N	Mean	Std. D	BWT-T	SP-T	LS-T	Ag-T	ED-T
				Pearson Correlation				
				Sig. (2-tailed)				
Fluid Intake	130	5192.31	1063.16	-.06	-.04	0.03	-.06	-.07
				0.30	.61	.62	.99	.84
Calories	130	3834.85	876.90	-.09	.05	-.09	.15	.24
				0.26	.54	.24	.01	.00
Carbohydrate	130	528.00	202.04	0.02	.02	.09	-.35	.13
				0.71	.77	.20	.95	.13
Dietary Fiber	130	19.15	4.41	0.03	.02	.07	.08	.01
				0.34	.78	.58	.66	.83
Sugars	130	249.35	65.25	-.01	.01	.01	-.02	.13
				0.83	.82	.02	.79	.14
Fat	130	182.46	72.02	-.07	.05	-.46	.10	.16
				0.38	.54	.08	.00	.06
Protein	130	293.81	53.83	-.17	.00	-.07	.05	.18
				0.49	1.00	.91	.64	.02
Vitamin A ,B6,B12,C,D,E,K	130	4314.77	1985.68	-.01	.00	-.18	.10	.06
				0.23	.75	.80	.10	.30
Minerals	130	3.67	0.78	-.03	.00	-.43	.09	.19
				0.99	.92	.66	.52	.02

The “Pre camp Nutritional status questioner” is one specific dimension with comprised of different items; Items measured the nutritional ingredient of the participants. Above table showed the Individual Item Analysis of respondent’s perception about, mean St.d, correlation and p value with respectively, Fluid Intake in milliliter, Calories in kilo joule, Carbohydrate, Dietary Fiber, Sugars, Fat, and Protein in grams, Vitamin in milligram, and minerals in microgram.

DISCUSSION:

The study gets to association between nutrition and physical fitness among Pakistani athletes. Data was obtained from a sample of 130 (male & female) elite athletes. Intake of

iron, vitamin B_1, phosphorus, magnesium, sodium carbohydrate, protein, fat, vegetables, milk and dairy products intake is low in normal standard of elite athletes [7]. The current study data of physical fitness test of elite athletes showed above table, that results of current study showed, level of physical fitness of elite Pakistani athletes was low. German athlete's physical fit rather than Pakistani athletes and it is one of the main factors in their performance [8]. Regular training to athletes improves physical fitness and protects them from different health diseases[9]. Role of high sports confidence facilitated performance through its positive effect on athletes' thoughts, feelings, and behaviors[10].In Pakistani Male athlete is a world class athlete but when we saw the nutritional status of that athlete .the nutritional status is very poor .he did not eat any extra diet according to his status .the reason is he is not well educated and not aware about the importance of nutrient. If that type of athlete trained and guide properly we can able to get better results in world events. Even some athletes send by their respective federation for training abroad .but they came back just because of meal problem they cannot survive without traditional meal which is not suitable for their professional training. Meal is also impact on your thought process as well. Our female is not fulfilling her nutritional requirement properly. But she is able to show her performance in this worst situation .if we provide all facilities to the sportsmen they will perform better in world class events.

CONCLUSION:

The study concluded that nutritional and fitness status of Pakistan athletes at home is not up to the mark. It was also concluded that nutritional status effect different component of fitness.

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