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To study practical ideas for enhancing athletes' performance at the university, national, and international levels

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Abstract

In order to improve the status of sports in Indian universities, it is necessary to raise awareness among policymakers, academicians, and educational institution managers about the poor state of sports in colleges and universities, and to encourage them to treat sports seriously and as a top priority. Physical education and sports, according to officials, are becoming increasingly vital in our lives. Policymakers and respondents, on the other hand, are not following through on their commitments. There has been a lot of talk about this, but the implementation is lacking, and a realistic and solid foundation for sports in educational institutions is required. As a result, the goal of this study is to discover and convey the truth about athletes' physical fitness and socioeconomic position at Solapur University in Solapur. In the Solapur district, the current study will aid in improving athletic performance. The current study is crucial in determining the role and impact of socioeconomic status on athletes' sporting achievement and fitness levels. Future athletes who have a high level of physical fitness but need to better their socioeconomic status would benefit from this research. Assessing an athlete's physical fitness level and recommending a physical fitness training program that is appropriate for them is beneficial. The findings will also help university/college sports policymakers, directors of physical education and sports, physical education instructors, coaches, and other sport science specialists design and implement programs to improve athletes' physical fitness and socioeconomic status.

Keywords: Indian universities, educational, physical fitness, athletes

1. Introduction

Numerous international research demonstrate that social background and opportunity availability affect whether or not someone chooses to participate in sports (Higginson, 1984) [1]. This demonstrates how an athlete's financial situation influences their decision to play sports because they have easier access to chances. As a result, they are able to afford both the necessary sporting goods and travel to locations with amenities.

Many things make it difficult for some athletes to participate in sports. According to Cratty (as referenced in Higginson, 1984) [1], a child may not engage in sports even in the presence of facilities if their parents don't care about this aspect of their development. Parents frequently don't make deliberate decisions regarding the child's participation in sports, but their lack of support and interest may be due to a variety of factors, such as financial hardships, unemployment, working longer hours than necessary, or the fact that older siblings must take care of the younger siblings, making it impossible for them to engage in sports.

According to Graham and Phillip (1999) [2], students who perform well academically typically have a higher socioeconomic level and access to better educational opportunities.

The World Health Organization reports (as stated in Van Deventer, 1998) [3] state that a decrease in sports participation is particularly concerning in impoverished areas, particularly in the densely populated inner cities of major and fast expanding metropolises.

The majority of rural communities lack enough infrastructure, making it impossible to establish sporting facilities. In many of these areas, young boys and girls create their own leisure activities using the objects at hand, such as playthings shaped like balls.

According to a World Health Organization gender analysis survey (as reported in Van Deventer, 1998) [3], students gave school sport participation a higher priority than club sport and leisure activities. The survey also revealed that ladies routinely engage in sedentary hobbies including dancing, partying, and music listening. In addition to routinely attending parties, dancing, and listening to music, boys also do sports at school. Boys prioritize playing sports in school

more than girls do. Of the sample included in the study, 35% of girls and 45% of males were active participants in school sports.

When young female adolescents witness their mothers participating in sports, socialization will serve as their motivation to do the same. Gender is one of the factors that affect the socialization process and ultimately lead to the decision to participate in sports, but this does not imply that gender always predicts behavior. According to Greendorfer, Hasbrook, and McMullin (quoted in Higginson, 1984) [1], sex-role preconceptions, especially those originating from the father's socioeconomic background, may also have an impact on the sport that the learner ultimately selects.

The aforementioned results show that there are a number of reasons why students choose not to play sports, and that socioeconomic status may only have a little influence on students' decision to participate in sports. The elements listed above might not have a stronger impact on a prospective athlete who does not have a personal desire to achieve in sports.

1.1 Significance of the study

The truth is that no team sport or individual athlete has achieved anything noteworthy in national university games since Solapur University was founded. Although there may be a variety of similar reasons, they should be seriously considered and resolved in a disciplined way. The current study is helpful in understanding how socioeconomic position affects players' physical fitness levels and their ability to succeed in sports. Athletes, the director of physical education, sport teachers, the sport department, and other stakeholders involved in athletics in the research area will all benefit from the study. It could offer suggestions or a platform for the creation of sports games and athlete performance in the field of study.

2. Review of Literature

Juzwiak *et al*. (2008) [16] assessed 44 teenage tennis players' food habits and body composition. Following their division into two age groups (ages 10–13 and 14–18), the players' height, weight, and sexual maturation were measured. The measurement of body composition was done using dual-energy X-ray absorptiometry. Food consumption was measured using a 4-day food diary that was not consecutive. Regardless of age group, 89% of tennis players reported that their body mass index and 71% of them that their body fat were suitable for tennis practice. In 32% of the sample, a calorie deficit larger than 10% of energy expenditure was noted. Of the athletes, 50% ingested carbs in compliance with suggested amounts. For 98%, 80%, 100%, 100%, and 98% of the tennis players, respectively, the intake of protein and fat was above suggested levels, whereas the intake of fiber, calcium, potassium, magnesium, and folic acid was below recommended levels. It has been noted that teenagers participating in competitive sports face an extra challenge in maintaining optimal nutrition for growth, health, and performance: nutritional deficits.

Drinking liquids while exercising not only helps to maintain saliva flow rate but also helps prevent dehydration, which is linked to an elevated stress hormone response. Saliva contains lysozyme, a-amylase, immunoglobulin-A (IgA), and other proteins that have antibacterial qualities. Exercise normally causes a decrease in saliva production. A recent study (Bishop *et al*., 2000) [4] has confirmed that, when compared to a restricted fluid intake regimen, regular consumption of lemon-flavored, carbohydrates-containing drinks helps to maintain saliva flow rate and, consequently, saliva IgA secretion rate during prolonged exercise. Regular fluid intake is reported to prevent this effect.

According to Sawka *et al*. (2007) [5], athletes should create a customized drinking plan that matches their rates of perspiration loss and is both practical and effective in ensuring that the overall fluid deficit they experience throughout an event stays below roughly 2% of their body mass. An essential nutrient for athletes is water. Before beginning any sport, athletes should drink cooled liquid often to restore as much lost fluid as possible (www.timetorun.com, 2006). According to Jackson *et al*. (1995) [6], drinking a sports drink helps prevent dehydration and postpone weariness during high intensity stop-and-go activities like sprint cycling and volley ball.

Numerous earlier studies (Aragón-Vargas and Madriz-Dávila 2000; Maughan and Leiper 1993; Shirreffs and Maughan 1993) [7, 8, 9] have shown that, even with adequate fluid intake, when electrolyte concentrations are low, there is an increase in urinary excretion and, as a result, the subjects are in negative fluid balance. Furthermore, prior studies have demonstrated the significance of adding sodium to rehydration drinks (Maughan and Leiper, 1994; Shirreffs and Maughan, 1998) [10, 12]. As a result, when it comes to the post-exercise rehydration recovery process, both the volume and electrolyte composition of fluid consumed should be taken into account.

According to Singh (2010) [13], sustaining fluid balance is crucial for upholding a number of bodily processes and promoting exercise performance in hot conditions. Sweating is the main way that fluid is lost. Exercise in a hot climate for an extended period of time can cause the loss of more than one liter of bodily fluid every hour. Athletes' mental and physical performance may suffer if they are dehydrated or overheated and do not drink enough fluids to make up for their losses. In order to prevent weariness and dehydration, it is important to consume adequate fluids prior to the game and during rest periods. The greatest drinks for replacing lost fluids are diluted carbohydrate-electrolyte blends, which also provide some substrate for growing muscle. It is encouraged that athletes drink to replace lost fluids through perspiration rather than only to quench their thirst, especially in tropical climates. To keep the thirst sensations going and help the body retain the fluid that has been consumed, the rehydration solution needs to have enough salt in it.

According to Noakes (2002) [14], there is still uncertainty over the actual risk of dehydration. He argues that there is no proof that a dehydration level of 2–8% during competition affected a competitor's performance or health. The effect of weight loss (dehydration) during exercise on performance during weight-bearing activities, such as long distance running, need urgently controlled experiments. Oppliger (2002) discovered that dehydration puts athletes at risk for health issues, including mortality, in addition to lowering athletic performance.

3. Objectives of the study

To offer practical ideas for enhancing athletes' performance at the university, national, and international levels.

4. Research Methodology

For data collection on the athlete's socioeconomic status, the researcher used the survey approach. Various tests were undertaken in order to acquire data on the athletes' physical fitness. A comprehensive questionnaire containing information on athletes' socioeconomic background, athletic achievement, and academic achievement has been devised. The questionnaire was created using the Socio Economic Status Scale produced by National Psychological Corporation, Agra's Rajbir Singh, Radhey Shyam, and Satish Kumar.The researcher examined the players' socioeconomic condition, level of physical fitness, athletic and academic accomplishments, and affiliation with colleges connected to Solapur University in Solapur, Maharashtra. For this investigation, the stratified random sampling approach was employed.

The goal of the study was to create norms for Solapur University, Solapur athletics students between the ages of 19 and 28. For this study, round off 150 male athletes and 50 female athletes from 20 colleges associated with Solapur University in Solapur were chosen. In this Final Selection sample is 120 male athletes and 40 female athletes for this study.

5. Results and Data interpretation

5.1 Socio-economic status

The socioeconomic situation of athletes in affiliated colleges of Solapur University, Solapur, is the subject. The sample respondent's social, health, educational, and familial backgrounds are displayed.

5.2 Religion

The sample responders by religion are shown in Table. There are 160 samples in all, 120 of which are male and 40 of which are female. With regard to the total number of respondents, 50% of male respondents and 45% of female respondents are of the Hindu religion; 29.16% of male respondents and 35% of female respondents are of the Buddhist religion; 12.5% of male respondents and 12.5% of female respondents are of the Muslim religion; 4.17% of male respondents and 5% of female respondents are of the Jain religion; 4.17% of male respondents and 2.5% of female respondents are of the Christian religion, respectively.

Table 1: Religion of the respondents.

Religion					
Sr. No.	Particulars	Respondents			
		Male	%	Female	%
1	Hindu	60	50	18	45
2	Christen	5	4.17	1	2.5
3	Muslim	15	12.5	5	12.5
4	Buddhist	35	29.16	14	35
5	Jain	5	4.17	2	5
Total		120	100.00	40	100

It is discovered that while the majority of female respondents are Buddhist and Hindu, the majority of male respondents are from these religions. Given that Solapur is a district in Maharashtra where a diverse population resides, the most of its residents are Maratha Hindus and Buddhists. Thus, religion is another barrier preventing young people from developing good sportsmanship.

5.3 Category

Table display the sample responses by category. There are a total of 160 samples-120 of them are male and 40 are female. 41.6% of respondents who are male and 37.5% of respondents who are female belong to the open group out of all respondents. Furthermore, 62.5% of respondents who are female and 58.4% of respondents who are male fall into the restricted category.

Table 2: Category of the respondents.

Category					
Sr. No.	Particulars	Respondents			
		Male	%	Female	%
1	Open	50	41.6	15	37.5
2	Reserved	70	58.4	25	62.5
Total		120	100.00	40	100

The majority of respondents, both male and female, come from the reserved category. This is because factory laborers are more prevalent in the Solapur district of Maharashtra, and since their children cannot receive the support of their families in sports, they participate in college sports.

5.4 Mother tongue

Table present the mother language of the participants in the sample. There are 160 samples in all, 120 of which are male and 40 of which are female. Out of all the respondents, 75% of the male respondents have Marathi as their mother tongue, compared to 62.5% of the female respondents. Of the male respondents, 10.84% have Urdu as their mother tongue, compared to 12.5% of the female respondents; 10% have Telgu as their mother tongue, compared to 15% of the female respondents; and 4.16% have Kannada as their mother tongue, compared to 10% of the female respondents.

Table 3: Mother tongue of there spondents.

Mother Tongue					
Sr. No.	Particulars	Respondents			
		Male	%	Female	%
1	Marathi	90	75	25	62.5
2	Urdu	13	10.84	5	12.5
3	Kannada	5	4.16	4	10
4	Telgu	12	10	6	15
5	Other	0	0.00	0	0
Total		120	100.00	40	100

The majority of respondents, both male and female, report that Marathi is their mother tongue. Given that Solapur is a district in Maharashtra where individuals of all religious backgrounds reside, the bulk of the population is Maratha Hindus. Thus, Marathi is a regional language that is spoken more often and has an impact on other languages.

5.5 Geographical area of sample

The sample respondents' geographic location is displayed in Table. There are 160 samples in all, 120 of which are male

and 40 of which are female. Of the total respondents, 50% of the male respondents are from urban areas, whereas 50% of the female respondents are from rural areas, and 50% of the male respondents are from urban areas, whereas 50% of the female respondents are from rural areas.

Table 4: Geographical area of sample respondents.

Geographical Area of Respondents					
Sr. No.	Particulars	Respondents			
		Male	%	Female	%
1	Urban	60	50.00	20	50
2	Rural	60	50.00	20	50
Total		120	100.00	40	100

In terms of geographic location, it is discovered that responders who are male and female are equal. Since equal consideration is given to both urban and rural areas when choosing the male and female sample respondents.

6. Conclusion

It has been observed that families with members who work in factories or are engaged in farming have less interest in sports, and the BPL group in Solapur has a high rate of illiteracy.

The majority of respondents, both male and female, stated that their family members prioritize earning a living over other pursuits, such as coaching.

The majority of respondents, both male and female, do not follow a constant diet. This is because family members work in factories or in farming, and the proportion of BPL individuals in Solapur is very high, which reduces the convenience of following a fixed diet.

The majority of respondents, both male and female, cannot afford to purchase sports equipment since they fall into the BPL category. They use the equipment provided by the college for their sports practice.

It has been discovered that most male and female respondents receive sports equipment from their institutions. Using whatever equipment is available in the college, the students practice. Only a small percentage of particular game players buy the necessary sporting goods on their own.

Research indicates that there is a higher proportion of male respondents who participate in social activities compared to female respondents who do not. The rationale for this is that most male and female respondents' families suffer from addiction, and India is a country dominated by men, which grants freedom to men while restricting the activities that female respondents can engage in in public. The reason for this is that these family members are either factory or farm workers, and their surroundings cause them to get addicted.

Tobacco and alcohol addiction is the most common addiction among family members. Due to mental stress and the environment they labor in, those who work in factories or farms become accustomed to addiction.While female respondents hardly ever find time to study, the majority of male respondents struggle to balance employment and school. Many students in Solapur work and study at the same time, which makes it difficult for them to concentrate on their athletic endeavors. Girls who are under pressure from their families and studies tend not to be interested in sports.

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