

A study on attitude of engineering students towards Sports and Physical Education.

Tara Singh Thakur^{1*}, Mahesh Chanda¹ & Sandhya Gadhe¹

¹Department of Physical Education, Anurag Group of Institutions, Hyderabad, India.

¹emails: tarasinghhs@cvsr.ac.in, maheshsport.61@gmail.com, gsandhyavolleyball@gmail.com

Abstract: Attitudes of students and human beings in general has been changing from time to time with clear justifications. This study intends at studying the attitudes of boys and girls pursuing technical education towards sports and physical education in particular. To serve the purpose 180 students (103 boys and 77 girls) who were pursuing Bachelor of Technology (B.Tech) were chosen as subjects on their willingness. To study their attitude towards sports and physical education they were all educated about the purpose of the study and have given their responses in the questionnaire supplied to them. The reasons provided by the participants for their participation in physical activities and sports were obtained in different ratios as keeping fit (91%), strong feeling of well-being (85%), relief from stress (93%), increasing in physical abilities (90%) and to gain rewards and prizes (82%). The reasons provided by the participants for their non-participation in physical activities and sports were also obtained in different ratios as lack of time due to academic commitments (74.5%), lack of facilities to learn sports (60%), high level of competition (57%) and reluctance and laziness to play (55%).

The students chosen for the study were from the departments of Computer Science Engineering (CSE) and Information Technology (I.T). It was hence concluded through this research that students pursuing Engineering Education are well aware of the benefits of active participation in Sports and Games but still most of them do not participate in physical education due to the above listed reasons and the students who are active in sports and games are interested due to the benefits they have been gaining since school age.

Keywords: Sporting, Stress Management, Academic Commitments, Reluctance, Wellbeing.

1. Need for the Study

Not many students participate in sports in the engineering courses which is a well-known fact. This study is designed to make it pertinent to find the reasons for their participation or non-participation in sports and physical activities. There is a need to promote student participation in sports for their physical and mental well-being so that it in turn promotes their Education system. From this survey based on their responses, we can identify the reasons and work on the design which serves the need to cater to their needs and provide necessary facilities for their participation in sports

2. Introduction

When compared to the Universal Education System, the Indian system of Education is one of the unique types which have evolved through changes in mindsets of the parents. As per the previous studies players who reported a high level of parental support tended to report greater enjoyment of sporting and viewing sports as a more important part of their lives, and fall lower in failures than players who reported a lower level of parental support [5]. In India, parents are more concerned about the academic performance of their wards and are merely bothered of physical status and physical fitness of their children. It is true that Sports advocacy and information organizations abound. An interested parent or community leader can gain orientation from Sports organizations [4]. Hence this study was formulated to focus on the actual attitudes of students who have been nurtured in a traditional way with not much importance towards Sports and Physical Education. The children of today's generation are unaware of the need for competence, self-determination, reward administration and the true benefits of participation in Physical Activity and sports [3][9]. Even though it is being emphasized to promote physical activity worldwide, the humans of today's generation are least bothered of it and rather concentrate on trendy living styles. The latest lavish gadgets and technologies have the highest impact over human beings' lifestyle in today's generation. This majorly causes physical inactivity and laziness among the adolescents and teenagers. Earlier was the age where everything was earned only through hard work and physical involvement in the activity. But today whether it is watching your favourite movie or eating your favourite food from a restaurant – it's all made easy through modernisation which involves no physical efforts. The reason that people today are not giving much importance to physical fitness is because of the luxurious lifestyles. The above mentioned are just glimpses of core reasons for physical inactivity in today's generation.

Not all engineering educational institutions today are well equipped with facilities and infrastructure to promote Sports which in turn leads to inactivity and laziness among the students. On the other hand the syllabi of academic courses of B.Tech are so huge that the students do not find time to get out of the classroom education and very scarcely find time to play or move around. Similar research was earlier carried out for children attending primary school and also children attending high school.

3. Objectives of the study

The research was intended to answer the following questions

- What is the percentage of students who participate in Sports and Physical Education?
- Why do engineering students participate or not participate in sports and physical education?
- What best can be done by Colleges to promote the interest of students in Sports Participation?

4. Methodology

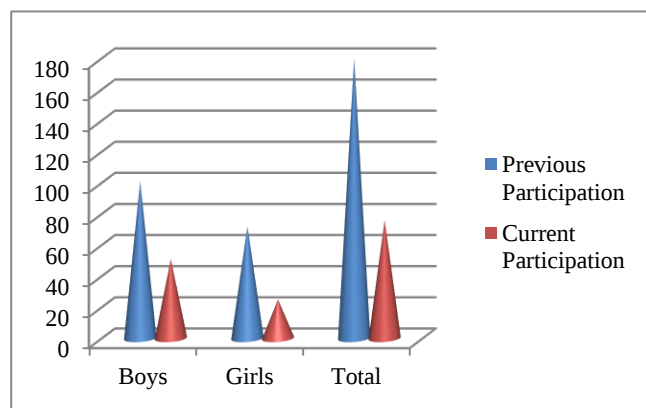
To serve the purpose of the study, we have chosen the students pursuing Bachelor of Technology (B.Tech) in the departments of Computer Science Engineering (CSE) and Information Technology (I.T) Second and Third year of their four year course. They were educated about the purpose of the study and have agreed to participate in the survey on their own willingness. Sports and Physical Activity participation Questionnaire which consisted of 35 questions to assess three major aspects namely present participation in sports, reasons for participations and reasons for non-participation was given to each subject and they filled in the questionnaire with their responses. Later the data was analysed to meet the objectives of the study.

5. Analysis of Data

The previous and present participation of students was first analysed using simple statistics where the respondents answered with Yes or No for their participation previously during school education and also for current participation in Sports and Physical Education Activities. The results obtained were as follows

Table: 1 Statistics of Students' participation in sports before and after admission into B.Tech Course

Gender & Total Number	Previous Participants (%)	Current Active Participants (%)
Boys (103)	101 (98%)	51 (49.5%)
Girls (77)	72 (93.5%)	25 (32.5%)
Total (180)	173 (95.75%)	76 (41%)



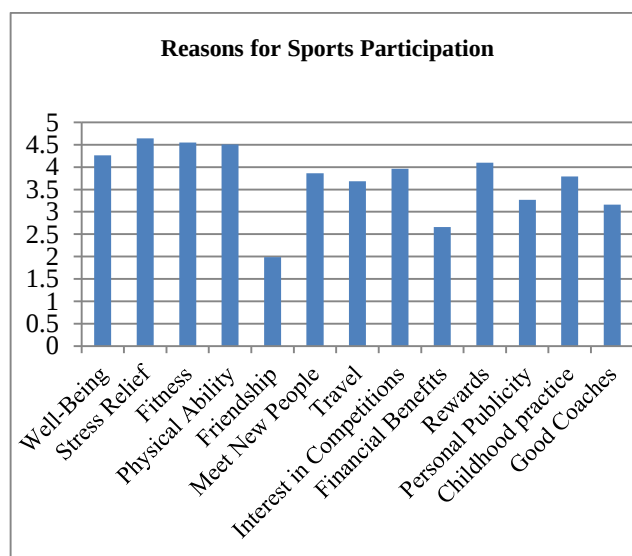
Graph: 1 Statistics of Students' participation in sports before and after admission into B.Tech Course.

In the questionnaire given, the response options given for the subjects to express the relativity of reasons to their participation or non-participation in Sports and Physical Activity was between 1 and 5 where 1 is for Strongly Disagree, 2 is for Disagree, 3 is for Neutral expression, 4 is for Agree, and 5 stands for Strongly Agree which will be the highest score that can be given by an individual for any reason. The respondents accordingly gave their inputs.

The second approach towards the data was to segregate different reasons for which the students participate in Sports.

Table: 2 Responses of the subjects towards reasons for participation in Sports.

Si.No	Reasons for Sports Participation	Average Score Obtained
1	Well-Being	4.265
2	Stress Relief	4.641
3	Fitness	4.547
4	Physical Ability	4.504
5	Accompanying Friends	1.984
6	Meet New People	3.859
7	Travel	3.680
8	Interest in Competitions	3.961
9	Financial Benefits	2.656
10	Rewards	4.101
11	Personal Publicity	3.266
12	Childhood practice	3.789
13	Good Coaches	3.157



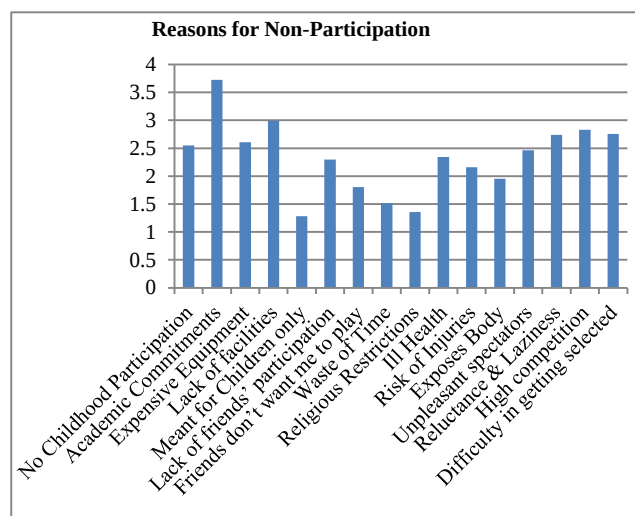
Graph: 2 Statistics of reasons for participation in Sports.

There were two categories of students who were in the population. The first category were the students who continued their interest in Sports participation even after joining B.Tech and the second category were the ones who stopped participating in Sports and Physical Activities after joining Engineering course. To attain the objective of identifying the reasons for non-participation in sports and physical education activities, the data was analysed as done

for analysing the reasons for sports participation and following data was obtained. The questionnaire had 16 various reasons listed with options to give responses. All the 16 statements were reasons listed for non-participation of students in Sports and Physical activities. All the responses were accumulated and analysed.

Table: 3 Responses of the subjects towards reasons for not participating in Sports.

Si.No	Reasons for Sports Participation	Average Score Obtained
1	No Childhood Participation	2.547
2	Academic Commitments	3.726
3	Expensive Equipment	2.609
4	Lack of facilities	2.992
5	Meant for Children only	1.283
6	Lack of friends' participation	2.297
7	Friends don't want me to play	1.805
8	Waste of Time	1.516
9	Religious Restrictions	1.359
10	Ill Health	2.344
11	Risk of Injuries	2.157
12	Exposes Body	1.953
13	Unpleasant spectators	2.461
14	Reluctance & Laziness	2.740
15	High competition	2.827
16	Difficulty in getting selected	2.756



Graph: 3 Statistics of reasons for non-participation in Sports.

6. Discussions

Student Participation in Sports: The statistics from Table 1 reveal that out of 103 male students who have taken the survey 101 students i.e. 98% were active in sports and physical education activities earlier during their schooling and now after joining Engineering only 51 boys i.e. 49.5 % of total male population are active in sports which shows that the participation of Boys has come down by 48.5% after joining Engineering course. Similarly out of 77 female students who have taken the survey 72 students i.e. 93.5%

were active in sports and physical education activities earlier during their schooling and now after joining Engineering only 25 girls i.e. 32.5 % of total female population are active in sports which shows that the participation of girls has come down by 59% after joining Engineering course. This is in line with the findings of Tomáš Kolofik[1] study which revealed statistically significant differences ($p < 0.05$) among the attitudes of the boys and girls, while boys acquired the average score of 65.92 points and girls acquired the average score of 61.05 points. On an average the statistics reflect that the percentage of Engineering students participating in sports prior to joining Engineering was 95.75% and after joining the course it has come down to 41% due to various reasons. The values obtained from the analysis of data which are mentioned in Table 1 and represented by Graph 1 elucidate that the students are more active in sports participation and physical education before they get in to professional Engineering courses and their participation is cut down due to various reasons after joining Engineering course.

Reasons for Sports Participation: Students have expressed their reasons for participation in sports and physical activities by filling the questionnaires with values 1 to 5 in relation to various reasons which were listed in the questionnaire. The data analysed is presented in Table 2. It shows that the top three reasons (Score > 4.5) for which Engineering students participate in Sports is to get relieved from stress (Score-4.641/5), to maintain physical fitness (Score-4.547/5) and to improve their physical ability (Score-4.504/5). The second level of reasons (Score-3.5 to 4.5) expressed by the participants were for Well-Being (Score-4.265/5), for Rewards which they get (Score-4.101/5), due to Childhood practice (Score-3.789/5), out of Interest in Competitions (Score-3.961/5), to Travel (Score-3.680/5) and to Meet New People (Score-3.859/5). The third level of reasons (Score < 3.5) expressed by the participants were to gain Personal Publicity (Score-3.266/5), due to attachment with Good Coaches (Score-3.157/5), for Financial Benefits (Score-2.656/5) and for accompanying Friends (Score-1.984/5).

This analysis shows that the students pursuing Bachelor of Technology who have passion towards sports continue their activity as they are aware of the physical, mental and social benefits that they gain through physical activity and experience the same. In addition regular childhood practice, interest in competing, joy of travelling and getting new connections across the world are other reasons expressed by the subjects. Lastly students stay active in sports and physical activity due to their association with good guiding coaches, to become familiar in their community, to earn out of it and to enjoy the company of friends. This is same as said by McNeill, M. C who concluded in his study that the main difference between the 'highly motivated' and 'high task-mastery' clusters was that the former were more likely to endorse 'gaining social status' as one of the main purposes of sport[8]. All these reasons constitute to the over-all development of a human being.

Reasons for Non-Participation in Sports: The third part of the questionnaire was constituted with 16 reasons for which the students did not participate in sports and the subjects gave their responses to each reason with grading 1 to 5 either agreeing or not agreeing for that to be a proper reason for non-participation. The data obtained was analysed and presented in Table 3 and graphically represented in Graph 3.

The clear outstanding reason for non-participation in sports as expressed by engineering students was Academic Commitments (Score-3.726/5) followed by the second level of reasons (Score-2.5 to 3) were Reluctance & Laziness (Score-2.740/5), High competition (Score-2.827/5), Difficulty in getting selected (Score-2.756/5), Lack of facilities (Score-2.992/5), Expensive Equipment (Score-2.609/5) and No Childhood Participation (Score-2.547/5). The third level of reasons (Score-2 to 2.5) which were expressed by the subjects were Lack of friends' participation (Score-2.297/5), Ill Health (Score-2.344/5), Risk of Injuries (Score-2.157/5) and Unpleasant spectators (Score-2.461/5) and finally the other reasons (Score < 2) expressed were Exposes Body (Score-1.953/5), Friends don't want me to play (Score-1.805/5), Waste of Time (Score-1.516/5), Religious Restrictions (Score-1.359/5) and Sports are meant for Children only (Score-1.283/5).

Based on the above detailed statistics it was understood that the students pursuing Engineering course are obstructed by the barrier of academic commitments to participate in sports and physical activity. The expectations of parents from their wards may be one major reason why students are prone to academic commitments and are aimed at working hard towards their goals. This process does not permit them to deviate from academics towards fitness and well-being. The lifestyle of today's youngsters has been moulded by laziness and reluctance which has been mentioned as one reason for non-participation. This develops a nature of intending to get into the sports teams without any efforts which is practically impossible. Thus the subjects feel it difficult to face the selection trials and are at times scared of facing the competition. The relationships between the motivational factors that influence sport participation need to be focussed and inculcated into the syllabi [7]. It was also observed that the facilities and infrastructure in engineering institutions are not catering to the needs and interest of students which has been a reason for non-participation. At times the equipment of certain sports is expensive which sets a hurdle to interest of students. Another common reason that reduces the interest of engineering students in sports is lack of childhood participation which is supposed to be inculcated since childhood. Other than the above elaborated reasons some other reasons which were observed were ill health, risk of injuries, lack of friend's participation, religious restrictions. Not only this, the atmosphere of competition which includes the sports outfits and the spectators watching you also has the influence on sports participations. Some students have expressed that the dress they need to wear while playing exposes their body which makes them feel

uncomfortable. This is similar to the findings of Deaner, Robert O [2] in his study which concluded a robust sex difference in direct physical competition co-occurs with meaningful variation in its expression. It was also noticed that there were students who assumed sports participation is waste of time and felt that it is meant only for kids and not for elders.

Role of Institutes and Teachers: After thoroughly analysing the obtained data and interacting with the subjects it was understood that the institutes and the teachers have a great role to play in increasing sports and physical activity participation among engineering students. There is a growing understanding of how levels of physical activity may positively affect cardiovascular, musculoskeletal, respiratory, endocrine function, and mental health [6]. Hence

- Children should be nurtured from childhood so that they regularly take part in Sports and Physical activity and develop a love towards Sporting.
- The institutes must provide sufficient infrastructure and facilities for the students to participate actively.
- The academic load and constraints laid upon the engineering students must be reduced so as to create some free time for them to take part in extra-curricular activities which include sports.
- Sports and Physical Education must be included as a subject in Engineering Curriculum to create awareness among the engineering students on benefits of regular physical activity and sports participation.
- Students who actively participate in sports representing the Institutions should be encouraged by providing attendance to those days which they miss out by participation.

7. Conclusions

The following conclusions were drawn from the survey

- Students are active in sports and physical education programs during their schooling and pre-college education.
- Students who previously participated in sports and physical activities are well aware of all the physical, mental and social benefits and they have valid reasons for participation.
- After joining Engineering education the participation of students in sports and physical activities comes down majorly due to academic commitments.
- One of the major reasons for non-participation of engineering students in sports and physical activities is lack of proper infrastructure and facilities which has to be given attention by the managements.
- Good coaches are an asset to active participation of students in sports and physical activities.

- Participation of engineering students in sports and physical education activities will help them in enhancing quality of life through academic betterment.

8. Limitations:

The study was limited to 180 students pursuing Engineering Education at Anurag Group of Institutions, Hyderabad, India.

- All the subjects were pursuing B.Tech in either Computer Science Engineering (CSE) or Information Technology (I.T) branches.
- The age group of subjects was between 18 to 21 years.

9. Recommendations

- This survey was limited to the students of only two branches of engineering stream and hence further research can be carried out on students of different streams and compare with this data.
- If colleges provide sports facilities to encourage students, it will improve the quality of student life which further can be studied.
- A study can be further designed on success rate of engineering students with sports participation with placements as the criteria.

10. References

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