A country like India and Iran varied climate conditions, wide gaps in socioeconomic levels, and different cultures and food habits.

During history, physical fitness has been always interested in by different people with different perspectives. Since the creation of the man, physical fitness is being along the man as a surviving means and to meet the necessary daily needs. Fitness has been recognized from time immoral as the greatest wealth. It has rightly been said, though fitness many not be everything, everything without fitness is nothing.

Physical and motor fitness along with mental health are abilities to carry out daily tasks with vigor and alertness, without undue fatigue and with ample energy to engage in leisure pursuits and to meet emergency situation.

Physical education field is going through a radical transformation; therefore its play an important role to improve quality of human life and socio as well.

Literature indicates that the sound body is necessary for the students to achieve full educational potential. Unless students have the capacity to develop their physique in strength and fitness within the limits set by heredity, few if any, of the objective of education and sport can be attained.

In sports today best performance can only be achieved through a meticulously planned, executed and controlled training system loosed on the scientific knowledge, theoretical and methodical fundamentals of sport training.

Unexpectedly, no comparative research study has been conducted on physical and motor fitness components and it's relation to quality of physical education program for two different countries; therefore the topic of this research seems to be justified and thought desirable to undertake this study.

The objectives of the present study were to measure the physical fitness variables and also the anthropometric characteristics of high school students of
Shiraz and Pune cities and compare them. The last objective of this study was to find out the relationship between physical fitness and quality of physical education program of both cities.

The physical fitness and anthropometric characteristic of students have been measured by using standard tools and also in order to measure the quality of the programs, three questionnaires which have been developed by researcher have been used.

Reliability of the questionnaires were tested which was found reliable and statistically significant at the of range (r =.988, to r=.992, P<0.05) The coefficients of reliability of the fitness test items were ranged from 0.76 to 0.96 which were statistically significant.

**5.2 Major Findings**

The results of descriptive statistics, have indicated that the subjects mean score in height, weight, total body fat% and BMI in case of shiraz students were found 167.97cm(SD=7.63),57.78kg,(SD=11.89),20.03(SD=4.91)and20.42(SD=3.59) respectively while in case of Pune students, the mean score in height, weight, total body fat% and BMI were found, 164.97cm(SD=7.63) ,59.70kg  (SD= 6.030), 20.16 (SD=4.91) and 20.42(SD=3.59) respectively.

The statistical analysis of physical fitness data have revealed that in case of eight components of physical fitness, (balance, speed of limb movement, flexibility, explosive strength, static strength, running speed and agility, and cardio-respiratory endurance) shiraz students had better score so it was found that there was significant differences between both cities, but only in one component, (Functional strength) there was no significant difference between both cities.

While the anthropometric data analysis has shown that Pune students had higher score in weight and BMI,while shiraz students had higher score in height so it was found that there was significant differences between both cities .But, in case of total body fat%, there was no significant difference between two cities.
5.3 Discussion

Physical fitness programs have always been the main and important pillar of the physical education and sport science that during the years many systematic attempts have been made in order to develop it. Because of the importance of physical fitness and conditioning in learning the sport skills and also testing the athletes’ abilities, so far many fitness battery tests have been invented.

As regards to the importance of physical fitness and its influence on health and success of athletes, seems that having a proper physical fitness in sport disciplines, can be guarantee for better performance and showing the athletes’ abilities.

The main aim of this present research was to compare the physical fitness levels of high school students of Shiraz (Iran) and Pune (India) cities and its relation with physical education programs in both cities.

In this present research, different anthropometric and physical fitness characteristics and components have been evaluated with same battery test. In addition, the quality and quantity of physical education programs of both cities have been evaluated by two questionnaires.

The hypotheses of present research were: 1) there will be significant differences between physical fitness of high school students of Shiraz and Pune cities, 2) there will be significant differences between anthropometric characteristics of high school students of Shiraz and Pune cities, 3) there will be significant relationship between physical fitness levels of high school students and quality of physical education programs in both cities.

In the first hypothesis, the research findings and table 4-6 which depicted in chapter 4, shown that in the most of the physical fitness components, there is significant differences between both cities.

In case of functional strength test, although there is a difference between mean values of both cities, but this difference is not meaningful. But in other tests, findings showed that there is a significant difference between mean values of fitness components of both cities. Hence, it can be concluded that the students of Shiraz city (Iran) had better physical fitness than their counterparts in Pune city (India).
By comparing results here with those obtained from Turkish survey which conducted by N.Agun et al. (1990), there appears to be some differences between the children at the age of 15 to 17 years old. Flexibility measured by sit & reach test showed that Shiraz and Pune students results are higher than their counterparts in Turkey in all age groups of 15 to 17 years old by 20 to 22 cm respectively. The shuttle run 10*5 test indicated better results for Turkish children in all age groups of 15 to 17 years old than their counterparts in Shiraz and Pune students by 4 to 5 sec respectively. Static strength test results showed that Pune and Shiraz cities are better than 15 years old in Turkey by 2 to 3 kg respectively, but lower than age groups of 16 to 17 years old in turkey by 7 to 9 kg.

The explosive strength test indicated better results for Turkish children in all age groups than their counterparts in Shiraz and Pune cities 10 and 40 cm respectively. The functional strength test results have shown that Turkish children in all age groups are much better than Shiraz and Pune students by 5 to 12 sec respectively.

In case of sit-ups test, the results showed that Turkish children in all age groups are lower than Shiraz and Pune students by 1 to 2 cm respectively. Balance and speed of limb movement were not calculated for all age groups in the Turkish survey.

Willem van et al. (1987) conducted their study to construct the Euro it test references scale for Netherland school children. By comparing the results with present study, some differences between these two studies have been found.

Speed of limb movement test results indicated that Netherland students in age groups of 15 and 16 are better than their counterparts in Shiraz and Pune cities by 3 sec. In sit and reach test, the results have shown that Shiraz and Pune students had better performance by 10 to 13 cm than the Netherland students aged 15 to 16 years.

In explosive strength test, Pune students results are lower than both age groups of 15 and 16 years Netherlands boys by (7 to 16 cm) but in case of Shiraz students, the results are better than 15 years old Netherland boys by (3 cm) but lower than 16 year-old boys by (6.5 cm). Hand grip test results indicated that Netherland students are better in age groups of 15 to 16 than their counterparts in Shiraz and Pune students by (7 to 12 kg).
In trunk strength test, Shiraz students and Netherlands students are closest comparatively, but Netherland students are better than Pune students by (1.5 cm). In Bent arm hang test, the results showed that Netherland students are superior to their counterparts in Shiraz and Pune by 11 to 17 sec.

In case of second hypotheses, statistical analysis has shown that there is significant differences between both cities in case of BMI and weight so that the mean values of weight and BMI of Pune students are higher than shiraz students. Height comparison statistical results shown that shiraz students are taller than their counterparts in Pune but in case of total body fat percent (TBF%), indicated that there was not significant differences between two cities.

By comparing the results of present study with the results of N.Agun and his colloquies (1990) how carried out research in Turkey, some differences can be seen between these two studies. Pune students are shorter than in all age groups of Turkish students by (2-3cm) and shiraz students are shorter than 16 and 17 years old in turkey by (2-3cm), but taller than 15 years old by (1.5 cm) and the weight of shiraz students is higher than 15 years old in turkey by (1.5kg) and lower than 16 and 17 years old by (2to 3kg). In case of Pune students, the results shown they are heavier than their counterparts in turkey at the age of 15 years by (3kg), but lighter than age groups of 16 and 17 years old by (.5 to 2kg). The BMI indicated the closest comparative results between Shiraz and Pune with Turkish children.

By comparing the anthropometric results of this present study with Willen van Mechelen et al. study, (1987) the results of weight indicated that Netherlands students are heavier than Pune and Shiraz students by 4 to 9kg in age groups of 15 and 16 years respectively.

Netherland students are taller than Shiraz and Pune students in age groups of 15 and 16 years old. Total body fat % (TBF %) results indicated that Netherlands students boys at the age of 15 and 16 are fatter than Shiraz and Pune students by 7 to 11mm respectively.

In regards to 3rd hypotheses, investigation about the relationship between the physical fitness levels of students and the quality of physical education program, since the quality of physical education programs have included many components which any of them can have specific impact on physical fitness components; therefore in order to investigate this impact, multiple regression
method has been used. The results showed that there is significant relationship between variables of quality of physical education program and some of the physical fitness components, although this relationship was little.

Data analysis shows that there was a significant relationship between quality of physical education program and balance, speed of limb movement, explosive strength, static strength, and cardio-respiratory endurance tests in Shiraz, though this relationship was little. In other word, it can be concluded that the quality of physical education program had some impact on physical fitness components.

On the other hand, data analysis of Pune have shown that there was significant relationship between quality of physical education programs and balance, speed of limb movement, trunk strength and running speed & agility tests, although this relationship was little. Hence, it can be concluded that quality of physical education programs had some impact on aforementioned components. In fact, the statistical analysis shown each of physical education programs variables in both cities had specific impact on some of the physical fitness components. It can be said that probably the programs in both cities have focused on developing one component of physical fitness more than others.

Finally, as respects to significant differences between two cities which in most of the cases were in favor of Shiraz students, it can be concluded that probably the quality of physical education in Shiraz city (Iran) was better than Pune city (India).

For example, the cardio respiratory endurance which has been tested by endurance shuttle run 20m, is one of the most important factors in physical fitness was better in shiraz so it shows that more attention has been paid to that fitness components.
5.4 Conclusion

The present study, within limitations warrants the following conclusions:

There is positive correlation between three components of physical fitness (Speed of limb movement, static strength, running speed & agility) and coaches’ status on students view point among SHCS, where else in case of PUCS, the relationship is positive between four components of physical fitness and anthropometric (Balance, Speed of limb movement, explosive strength, TBF%). The relationship is significant only between Balance and C.S.S.V among SHCS and between Balance and C.S.S.V among PUCS. On comparing the coefficient of correlation between Coaches’ status on students view point and physical fitness components and anthropometric, the Fishers Z transformation test shows difference among SHCS and PUCS in case of balance, speed of limb movement, explosive strength, static strength and running speed & agility. Hence it can be concluded that the correlation in SHCS is significantly higher than it is in PUCS.

There is positive correlation between four components of physical fitness and anthropometric (balance, static strength, running speed & agility and BMI) and Outdoor facility among SHCS, where else in case of PUCS the relationship is positive between four components of physical fitness and anthropometric (Balance, speed of limb movement, trunk strength, and functional strength). The relationship is significant only between Balance and Outdoor facility among SHCS and between Balance and speed of limb movement among PUCS. On comparing the coefficient of correlation between Outdoor facility and physical fitness components and anthropometric, the Fishers Z transformation test shows difference among SHCS and PUCS in case of speed of limb movement, explosive strength and running speed & agility.

Hence it can be concluded that the correlation in SHCS is significantly higher than it is in PUCS. There is positive correlation between three components of physical fitness and anthropometric (balance, functional strength and running speed & agility) and Indoor facility among SHCS, where else in case of PUCS the relationship is positive between four components of physical fitness and anthropometric (balance, speed of limb movement, trunk strength and running speed & agility). The relationship is significant only between balance and...
running speed & agility and Indoor facility among SHCS and between balances among PUCS.

On comparing the coefficient of correlation between Outdoor facility and physical fitness components and anthropometric, the Fishers Z transformation test shows difference among SHCS and PUCS in case of speed of limb movement, explosive strength, trunk strength, running speed &agility, cardio-respiratory endurance, and BMI. Hence it can be concluded that the correlation in SHCS and PUCS is equal.

There is positive correlation between six components of physical fitness and anthropometric characteristics (speed of limb movement, flexibility, static strength, trunk strength, TBF% and BMI) and coaches’ questionnaire among SHCS; where else in case of PUCS the relationship is positive between five components of physical fitness. (Speed of limb movement, flexibility, static strength, trunk strength, and functional strength).

The relationships are not significant among SHCS but are significant between speed of limb movement and trunk strength among PUCS. On comparing the coefficient of correlation between coaches’ questionnaire and physical fitness components and anthropometric, the Fishers Z transformation test shows difference among SHCS and PUCS in case of bent arm hang TBF% and BMI. Hence it can be concluded that the correlation in PUCS is significantly higher than it is in SHCS.

5.5 Recommendations

Considering the existing relationship between the variables of physical fitness components and anthropometric and quality of physical education programs following recommendations regarding the implications and suggestions for further studies are as under:

- In this study, a survey was taken only for SHCS and PUCS school boys. Since the results are provoking, further investigation in this direction on girls and wider area seems to be valuable.
- As the study was developed to find out relationship between the variables, further study is recommended to ascertain association ship.
• Since this study has been done for high school students, it is recommended to be done with University students.
• Similar study may be undertaken with other fitness battery test with different age groups and population.
• Similar study can be done in state or national level in both contexts of India and Iran to make norm.
• Since the area of playground in most of the schools in Pune city are big, it is recommended to provide simple fitness instruments around the playground.
• Further experimental research to find out effect of physical fitness components can be undertaken by administering the experimental designs for a longer duration.

5.6 Contribution to Knowledge

• The knowledge as evolved from the present piece of research could contribute a new direction for enriching the literature of physical education and Sports.
• The knowledge evolved from this study seems to be new in the Literature of both of SHCS and PUCS context; in fact, this study will be directly helpful to coaches, trainees, and PE teachers. This contribution will enrich the overall physical education.
• This study will enrich the literature of SHCS and PUCS Sports and Physical education with the knowledge of Physical fitness and anthropometric characteristics on their relationship with quality of physical education programs.

Since favorable relationship between some of the components of physical fitness and anthropometric characteristics with quality of physical education programs seems established results can be helpful for policy makers and further design the curriculum of the educational institutions to enhance the fitness level of students.