

Relationship Between Physical Fitness And Persistency Of 11 To 14 Years Kho-Kho And Gymnastic Boys

Mr. Madan Ghosh¹, Mr. Amit Dey^{2*}, Dr. Susanta Sarkar³

¹Research Scholar, Department of Physical Education, University of Kalyani. ghoshmadan49@gmail.com

²Research Scholar, Department of Physical Education, University of Kalyani. amitphyedu22@klyuniv.ac.in

³Associate Professor, Department of Physical Education, University of Kalyani, West Bengal, India. sankar.sarkar246@gmail.com

*Corresponding Author: - Amit Dey

Abstract

Physical fitness leads to better athletic performance, and persistent training will usually develop physical fitness. Persistency is a personality trait. It is measured in the temperament and character inventory and is considered one of the four temperament traits. In this study the researcher worked on the problem entitled "RELATIONSHIP BETWEEN PHYSICAL FITNESS AND PERSISTENCY OF 11 TO 14 YEARS KHO-KHO AND GYMNASTIC BOYS". The purpose of the study was -1. Observe the physical fitness components of difference age groups kho-kho and gymnastic players. 2. Observe the persistency of difference age groups kho-kho and gymnastic players. 3. Observe Relationship between persistency and physical fitness. The total 25 boys from different four age groups were collected as the subject of the present study. For measuring physical fitness AAHPER youth fitness test and B.K.Passi test for . persistency measure. Result: 1. No significant differences were found between Gymnastics and Kho-Kho boys in Pull up, Standing Broad Jump, Shuttle run, 50 Yds and Whole Fitness. 2. Significant differences were found between Gymnastics and Kho-Kho boys in Sit up and 600 Yds. 3. No significant relationship was found between persistency and fitness components, (pull up, sit up, shuttle run, 50 yards, 600 yards, and) of kho-kho boys except standing broad jump and whole fitness. 4. No significant relationship was found between persistency and fitness components, (pull up, sit up, shuttle run, 600 yards, and whole fitness.) of gymnastic boys except 50 yards.

Key Words: Physical fitness, Persistency, Kho-Kho, Gymnastics, B.K.Passi test.

Introduction

Movement is a basic of human life. Movement is the integral part of physical education and sports. Through movement children express themselves, develop a positive self and gain a better understanding of their physical life.

Fitness is a product of exercise and training have been shown through research to possess important implications in the general health of the people proper nutrition, relaxation, adequate rests, health, appraised and good habits are all factors of implementation.

Fitness is defined as the quality or state of being fit. Around 1950, perhaps consistent with the Industrial Revolution and the treatise of World War II, the term "fitness" increased in western vernacular by a factor of ten. Modern definition of fitness describes either a person or machine's ability to perform a specific function or a holistic definition of human adaptability to cope with various situations. This has led to an interrelation of human fitness and attractiveness which has

mobilized global fitness and fitness equipment industries regarding specific function.

Physical fitness is to the human body what fine-tuning is to an engine. It enables us to perform up to our potential. Actually, physical fitness involves the performance of the heart and lungs, and the muscle of the body. Physical fitness always develops good athletic performance and continues training will develop the physical fitness.

According to Nixon, "Physical fitness refers to the organic capacity of the individual to perform the normal task of daily living without undue tiredness or fatigue having reserves of strength and energy available to meet satisfactorily any emergency demands suddenly placed upon him."

Fluency, flexibility, originality, persistency etc. are the components of creativity. Above all this component persistency is one of the main, which can be enhanced through practice. If these components can be nourished under proper environment it can be found that creativity is flourishing. Different literature shows that by

nurturing persistency one can easily develop this creative ability.

In psychology, persistency is a trait of personality. It is measured in the temperament and character inventory and is considered one of the four temperament traits. Persistency refers to perseverance in spite of fatigue or frustration. Consigners research found, like the other temperament traits is highly heritable.

In physical education persistency required both physical capacity and mental ability. In case of motor performance ability to engage in work is required both physical capacities.

Persistency may be more development on physical ability rather than mental ability in case of physical education.

Persistency was one of the most important components of creativity and improves only if it is nurtured under rather congenial circumstance. The physical fitness is also an acquired quality; it improves a lot through practice. And sports creativity is the combination of both these acquired qualities – a combined expression of creativity, particularly persistency and physical fitness.

Kho-kho is a primitive sport but till today it could not get a respective place in the world/society because lacking of interest towards this game. It can easily emerge because it does not require the good financial support and facility. So, we should make the attempts for its success. In ancient era or in the past it was thanked that kho-kho is a minor game so, there was no need of any advancement but, today this scenario has changed. Leading countries are on demand to include it in Olympic Games. Means now it has got too much popularity all over the world. So, it is very important to know the things those contributions a lot for a great success in kho-kho. As we know well that now a day's era is very competitive and advanced one. Today, for getting success in any games and sports we should keep in mind the lot of things like: advance facilities, skills, techniques, tactics and policies which may contribute to the success in a competition. Without any doubt we can say that, any success is depends on the science. Science means all those things which have logics and reliability. So, an attempt has taken by the research scholar to know that the actual role of physical fitness components in kho-kho games. No doubt a good level of physical fitness is a primary goal for any games and sports. It is right that we should have better understanding with the advance technologies/science, but without knowing the client a good doctor cannot do/apply any treatment. So, we should identify the factors which contribute for a great success in kho-kho.

Purpose Of The Study:

The purpose of the study was to observe.

1. Observe the physical fitness components of difference age groups kho-kho and gymnastic players.
2. Observe the persistency of difference age groups kho-kho and gymnastic players.
3. Observe Relationship between persistency and physical fitness.

The Subject

25 boys from different four age groups were collected as the subject of the present study. The four age groups were 11 years, 12 years, 13 years, and 14 years. The entire subjects were selected randomly among their own age group.

Criterion Measure:

To conduct the study, the researcher collects Age, Height and weight as personal data and also take six tests one for physical fitness test and one for persistency. For measuring physical fitness AAHPER youth fitness test was taken.

- (a) Pull-up --for judging arm and shoulder girdle strength.
- (b) Shuttle Run
- (c) Bent Knee Sit-up
- (d) 50-yard dash– for measuring speed.
- (e) 600-yard run-walk for judging cardiovascular efficiency.
- (f) Standing broad jump.

Test Of Persistency

TEST: B.K.Passi test.

Measured: Persistency.

Equipment: Stopwatch, Square puzzle.

Procedure: To measure persistency D.K. Passi square puzzle test was considered. The puzzle test was consisting of six separate pieces of puzzle, as per duration of the researcher the subject were asked to solve the puzzle, the time for solved the puzzle was maximum 30 minute, as soon as was asked start to solve the puzzle with signal and was taken. As soon as the subject denied to solve the puzzle time was taken. The difference was considering was scored.

Scoring: The scored was ranging 1 to 30 minutes, depend upon the ability to engage with the puzzle to solve. The total time to engage with the puzzle was considered as scored.

Statistical Procedure

After collecting the data, the result of the study was obtained by following statistical procedure as mentioned here under. At first the mean and S.D. values were calculated, and then to observe the difference between the means, t-value was completed. To observe the relations among the coefficient of correlation were also computer.

Result

Comparison Between Gymnastic Boys And Kho-Kho Boys Subjects

Table no-1: Mean, S.D. and ‘t- value of Gymnastic boys and kho-kho boys group subjects.

VARIABLE \ GROUP	GYMNASTICS BOYS	KHO-KHO BOYS	t-value
	Mean±SD		
PULL UP(Max. score)	10.73±3.09	11.13±1.56	-0.39 ^{NS}
SIT UP (Max. score per minute)	46.47±10.96	39.25±4.84	2.13*
STANDING BROAD JUMP(feet)	5.80±0.77	5.99±0.28	0.88 ^{NS}
SHUTTLE RUN (Sec.)	11.02±0.70	10.85±0.65	0.59 ^{NS}
50 YDS(Sec.)	7.54±0.41	8.20±0.41	-1.56 ^{NS}
600 YDS (Minute)	2.32±0.12	1.58±0.17	10.33*
FITNESS(Composite Score)	61.36±12.66	68.48±9.95	-1.45 ^{NS}
PERSISTENCY (Sec.)	918.04±410.58	677.85±218.53	1.76 ^{NS}

* = Significant, NS= Not significant. $t_{0.05, 23} = 2.07$
 The mean value of pull up of gymnastic boys group was 10.73 and kho-kho boys group was 11.13 and the SD values were 3.09 and 1.56 respectively. Comparing the mean and SD values of gymnastic and kho-kho boys groups some difference were observed, to observe the significant difference ‘t’ value was calculate and ‘t’ value found -0.39 which was no significant. From the result it appears that no significant difference observed in pull up between Gymnastic boys and kho-kho boys group. So, there was no difference in arm and shoulder strength between gymnastic boys and kho-kho boys.

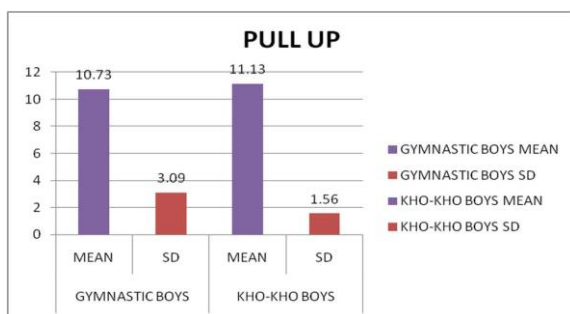


Fig: 1 Graphical Representation of pull up.

The mean value of sit up of gymnastic boys group was 46.47 and kho-kho boys group was 39.25 and

the SD values were 10.96 and 4.84 respectively. Comparing the mean and SD values of gymnastic and kho-kho boys groups some difference were observed, to observe the significant difference ‘t’ value was calculate and ‘t’ value found 2.13 which was significant. From the result it appears that significant difference observed in sit up between Gymnastic boys and kho-kho boys group. So, gymnastic boys were batter in flexibility than kho-kho Boys.

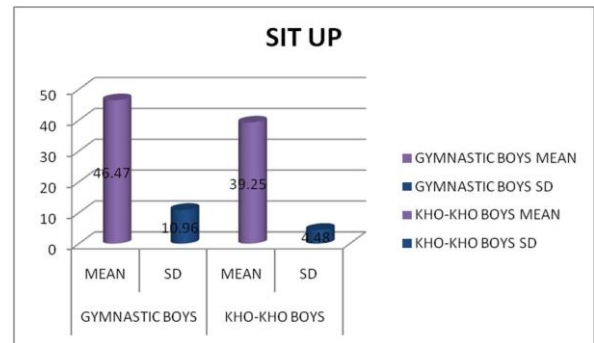


Fig: 2 Graphical Representation of sit up.

The mean value of standing broad jump of gymnastic boys group was 5.80 and khokho boys group was 5.99 and the SD values were 0.77 and 0.28 respectively. Comparing the mean and SD values of gymnastic and kho-kho boys groups some difference were observed, to observe the significant difference ‘t’ value was calculate and ‘t’ value found 0.88 which was no significant. From the result it appears that no significant difference observed in standing broad jump between Gymnastic boys and kho-kho boys group. So, there were no difference in explosive strength between gymnastic boys and kho-kho boys.

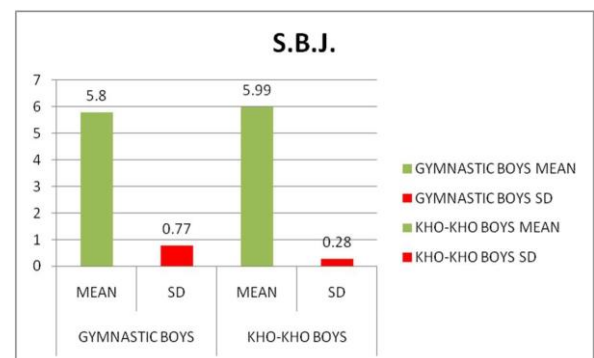


Fig: 3 Graphical Representation of standing broad jump.

The mean value of shuttle run of gymnastic boys group was 11.02 and kho-kho boys group was 10.85 and the SD values were 0.70 and 0.65 respectively. Comparing the mean and SD values of gymnastic and kho-kho boys groups some difference were observed, to observe the

significant difference ‘t’ value was calculate and ‘t’ value found 0.59 which was no significant. From the result it appears that no significant difference observed in shuttle run between Gymnastic boys and kho-kho boys group. So, there was no difference in agility between gymnastic boys and kho-kho boys.

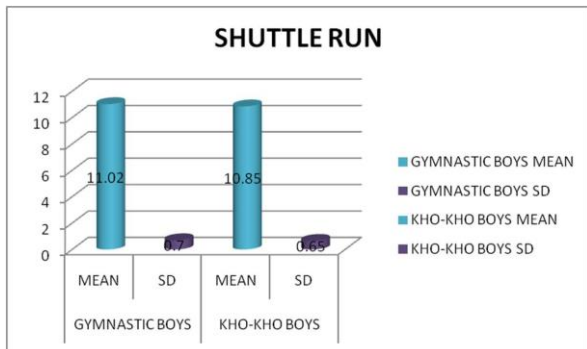


Fig: 4 Graphical Representation of shuttle run.

The mean value of 50 yards of gymnastic boys group was 7.54 and kho-kho boys group was 8.20 and the SD values were 0.41 and 0.41 respectively. Comparing the mean and SD values of gymnastic and kho-kho boys groups some difference were observed, to observe the significant difference ‘t’ value was calculate and ‘t’ value found -1.56 which was no significant. From the result it appears that no significant difference observed in 50 yards between Gymnastic boys and kho-kho boys group. So there was no difference in speed between gymnastic boys and kho-kho boys.

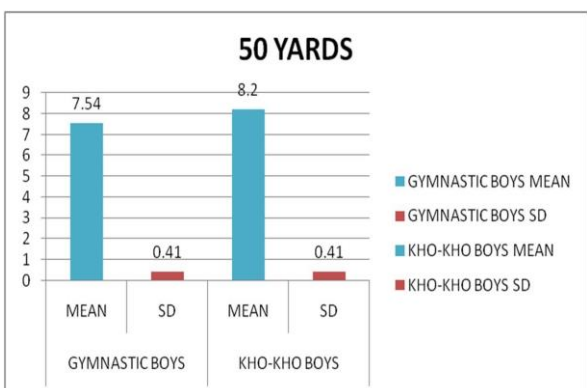


Fig: 5 Graphical Representation of 50 yards.

The mean value of 600 yards of gymnastic boys group was 2.32 and kho-kho boys group was 1.58 and the SD values were 0.12 and 0.17 respectively. Comparing the mean and SD values of gymnastic and kho-kho boys groups some difference were observed, to observe the significant difference ‘t’ value was calculate and ‘t’ value found 10.33 which was significant. From the result it appears that significant difference observed in 600 yards between Gymnastic boys and kho-kho boys group.

So, kho-kho boys were more batter in endurance than gymnastic boys.

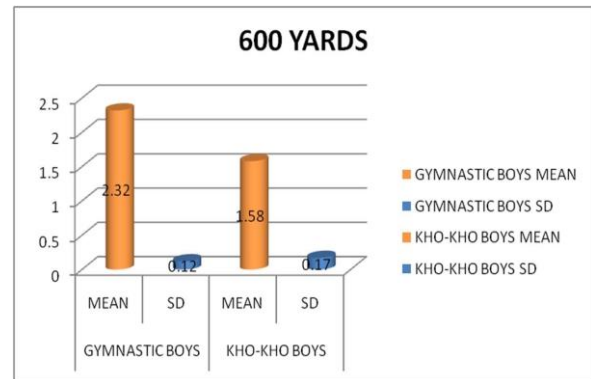


Fig: 6 Graphical Representation of 600 yards.

The mean value of fitness of gymnastic boys group was 61.36 and kho-kho boys group was 68.48 and the SD values were 12.66 and 9.95 respectively. Comparing the mean and SD values of gymnastic and kho-kho boys groups some difference were observed, to observe the significant difference ‘t’ value was calculate and ‘t’ value found -1.45 which was no significant. From the result it appears that no significant difference observed in fitness between Gymnastic boys and kho-kho boys group. So, there was no difference in fitness between gymnastic boys and kho-kho boys.

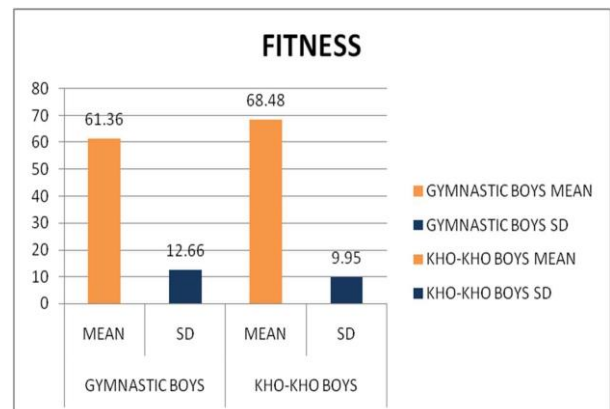


Fig: 7 Graphical Representation of fitness.

The mean value of persistency of gymnastic boys group was 918.04 and kho-kho boys group was 677.85 and the SD values were 410.58 and 218.53 respectively. Comparing the mean and SD values of gymnastic and kho-kho boys groups some difference were observed, to observe the significant difference ‘t’ value was calculate and ‘t’ value found 1.76 which was no significant. From the result it appears that no significant difference observed in persistency between Gymnastic boys and kho-kho boys group. So, there was no difference in persistency between gymnastic boys and kho-kho boys.

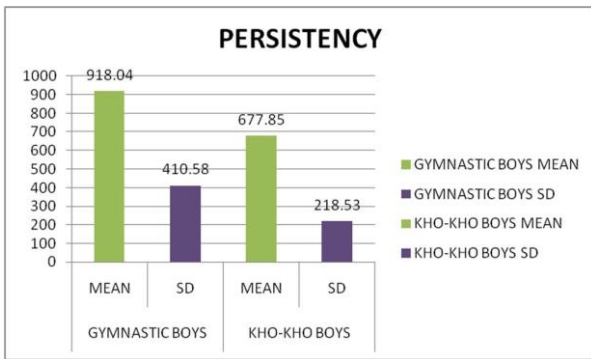


Fig: 8 Graphical Representation of persistency.

Relationship Between Persistency And Fitness Components Kho-Kho Boys And Gymnastic Boys

Table No- 2: Co-efficient of correlation between persistency and fitness components

VARIABLES	r- value	
	KHO-KHO BOYS	GYMNASTICS BOYS
PERSISTENCY		
PULL UP	-0.277	-0.165
SIT UP	0.161	-0.284
STANDIN G BROAD JUMP	-0.467*	0.005
SHUTTLE RUN	0.266	-0.035
50 YDS	0.275	-0.408*
600 YDS	0.149	0.009
FITNESS	-0.414*	-0.092

* = Significant, NS= Not significant. $r_{0.05} 23= 0.396$

From table -2, the coefficient of correlation between persistency and pull up of khokho boys was found -0.277 which was not significant. So, persistency and pull up was not related for kho-kho boys group.

From table -2, the coefficient of correlation between persistency and sit up of kho-kho boys was found 0.161 which was not significant. So, persistency and sit up was not related for kho-kho boys group.

From table -2, the coefficient of correlation between persistency and standing broad jump of kho-kho boys was found -0.467 which was significant. So, persistency and standing broad jump was related for kho-kho boys group.

From table -2, the coefficient of correlation between persistency and shuttle run of kho-kho boys was found 0.266 which was not significant. So, persistency and shuttle run was not related for kho-kho boys group.

From table -2, the coefficient of correlation between persistency and 50 yards of khokho boys was found 0.275 which was not significant. So,

persistency and 50 yards was not related for kho-kho boys group.

From table -2, the coefficient of correlation between persistency and 600 yards of kho-kho boys was found 0.149 which was not significant. So, persistency and 600 yards was not related for kho-kho boys group.

From table -2, the coefficient of correlation between persistency and fitness of khokho boys was found -0.414 which was significant. So, persistency and fitness were related for kho-kho boys group.

From table -2, the coefficient of correlation between persistency and pull up of gymnastic boys was found -0.165 which was not significant. So, persistency and pull up was not related for gymnastic boys group.

From table -2, the coefficient of correlation between persistency and sit up of gymnastic boys was found -0.284 which was not significant. So, persistency and sit up was not related for gymnastic boys group.

From table -2, the coefficient of correlation between persistency and standing broad jump of gymnastic boys was found 0.005 which was not significant. So, persistency and standing broad jump was not related for gymnastic boys group.

From table -2, the coefficient of correlation between persistency and shuttle run of gymnastic boys was found -0.035 which was not significant. So, persistency and shuttle run was not related for gymnastic boys group.

From table 2, the coefficient of correlation between persistency and 50 yards of gymnastic boys was found -0.408 which was significant. So, persistency and 50 yards was related for gymnastic boys group.

From table -2, the coefficient of correlation between persistency and 600 yards of gymnastic boys was found 0.009 which was not significant. So, persistency and 600 yards was not related for gymnastic boys group.

From table -2, the coefficient of correlation between persistency and fitness of gymnastic boys was found -0.092 which was not significant. So, persistency and fitness was not related for gymnastic boys group.

Conclusions

On the basis of results obtained, the conclusions of the study were drawn within the limitations of the present research work. These are follows:

1. No significant differences were found between Gymnastics and Kho-Kho boys in Pull up, Standing Broad Jump, Shuttle run, 50 Yds and Whole Fitness.

2. Significant differences were found between Gymnastics and Kho-Kho boys in Sit up and 600 Yds.
3. No significant relationship was found between persistency and fitness components, (pull up, sit up, shuttle run, 50 yards, 600 yards, and) of kho-kho boys except standing broad jump and whole fitness.
4. No significant relationship was found between persistency and fitness components, (pull up, sit up, shuttle run, 600 yards, and whole fitness.) of gymnastic boys except 50 yards.

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