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Sprint Fatigue Index of Youth and senior Kabaddi Players

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Abstract
The purpose of the study was to predict the players of kabaddi game from physiological variable like speed and fatigue index pilot study was conducted. Total 100 player selected in two categories were approached through coaches and managers of the team participating in the above mentioned tournaments. Scoring: The fatigue index is calculated by taking the average time of the first three trials and dividing it by the average time of the last three trials. This will give a value approximately between 75 and 95 % with the help of Graphical representation and statistical operation it could be conducted that Fatigue Index of Youth and Senior Kabaddi players was excellent but senior kabaddi player were much more sustainable than youth Kabaddi Players in sprint Fatigue Index.

Introduction
Kabaddi is basically an outdoor team game, played in the tropical countries of Asia. This indigenous game of India was adopted by other countries in Asia viz. Pakistan, Nepal, Bhutan, Bangladesh Sri lanka, Maldives, Malaysia recently by Japan and china. The excitement and thrill provided by the game has made it very popular and kabaddi is rightly called the 'Game of the masses', since spectators totally involve themselves and give the player a great deal of encouragement. The game requires no equipment whatsoever, and the rules of the game are very easy to comprehend. This is the reason for the popularity of the game in rural areas. Since rural youth in India can ill - afford sophisticated equipment demanded other sport. The game demands agility muscular co-ordination, breath holding capacity, quick response and a great deal of presence of Mind. Kabaddi was probably invented to develop responses by an individual against group attack and a group's response to an individual attack (15 - 5 – 15) kabaddi is a confrontational team game, played with absolutely no apparatus, in a rectangular court, either outdoor or indoor with seven players on the ground in each side

Origin
The sport has a long history dating back to Pre- historic time. It was probably invented to ward of group Attack by individuals and vice versa. The game was very popular in the southern part of Asia played in its different forms under different names. The Maharashtra has made and analogy of the game to surround all sites of Abhimanyu by the enemy .ie "Chakravyuyya"

Forms Of Kabaddi: Amar, Gemini, Sanjeevani

Statement of problem-The purpose of the study was to predict the player of kabaddi game from physiological variable fatigue index among state level senior and junior group of player

Hypothesis- It was hypothesis that senior player of Kabaddi might better than youth player predicted from physiological variable like figure index among state level Kabaddi player

Significant of the study-

This study will help the physical education teachers and coaches to design a specific program to identify the talents which are closely associated with the better Kabaddi performance.

Study will reveal the influence of physiological characteristic like fatigue index on the overall playing ability of kabaddi player.

This result might be utilized as screening instruments in analyzing and classification the Kabaddi Players.

The result of this study will help the young budding researchers to take up similar studies in other areas and discipline

Delimitation

The study was confined it to the following aspects,

This study was confined to only male inter district Kabaddi Players from Maharashtra state, India.

The subject for the present study have been delimited to the 100 state level Kabaddi Players only which include 50 seniors and 50 junior players.

The age of the subject ranged from 17 years and onwards.

The study was delimited to the fatigue index as independent variables.

Limitations

The variation in plane experience among players due to the fatigue index participation in tournament will be considered as limitations of the study.

Similarly the playing ability difference due to their Fatigue index in the coaching program if any will also be added to the limitations.

Fatigue index is influenced by the factor like food, habits, lifestyle, climatic condition and other environmental factors could not be controlled which may influence the result and hence they may be considered as one of the limitations of the study.

The students were from different social culture and economical status which was considered as limitations for the study.

The response of the subject to the statement in the Fatigue index test would depend upon various factors such as understanding of the test and seriousness and sincerity of the subjects.

No specific motivational techniques were used to encourage the subject to attend their maximum performance during testing

Methodology

A pilot study was conducted. The players selected in two categories were approached through coaches and managers of the teams participating in the above mentioned tournament.

Sprint fatigue test

Marker cones and lines are placed 30 M apart to indicate the sprint distance. Two more cons are place a further 10 meter along on each ends. At the instructions of the timer the subject places there foot at the starting line, then on 'go' two stopwatches are started simultaneously, and the subject sprints maximally for 30m, ensuring that they do not slow down before reaching the finish line. One stopwatch is used to time the sprint; the other continues to run. Record is to be taken for the time of the first sprint. The subject uses the 10 meter cone to slow down and turn. And return to the 30m finishing point, which then becomes the next start line. The next sprint will be in the opposite direction. Each 30m sprint start 30 seconds after the previous run started. This cycle continuous until 10 sprints is completed. Starting at 30 sec,1 min, 1.5 min,2 min etc. Afters the start of the first sprint.

Scoring: The Fatigue index is calculated by taking the average time of the first three trials and dividing it by the average time of the last three trails. This will give a value approximately between 75 and 95%

Table 1:- fatigue Index of youth and senior Kabaddi Players

Sr	Fatigue Index Senior	Youth Fatigue Index	T Scal
2	Average 89.41	86.99	31.58
3	T table value ∞; $N_1+N_2-2=50+50-2=98$ for 98DF Ttable=1.66at 0.05 Level of Significance	1.66	

T cal value> T table =1.66at 98DF 0.05 Level of Significance 31.58>1.66

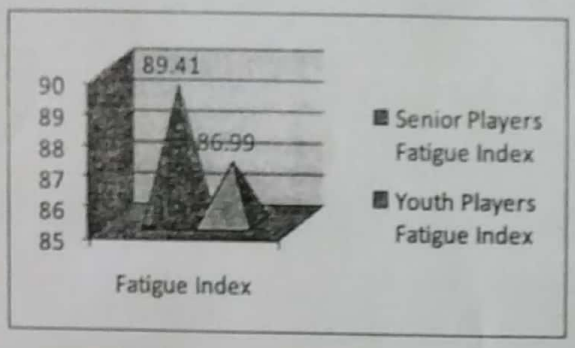
Null Hypothesis : (H_0):-Senior Kabaddi Players might have the same FATIGUE INDEX as the youth players .i.e.M_1-$M_2 \leq 0$

Alternative hypothesis :

(H_1):-Senior Kabaddi Players might differs in the FATIGUE INDEX compared to the youth players and senior players might be good in FATIGUE INDEX as compared to youth players .i.e. M_1-$M_2 \neq 0$ or M_1-$M_2 > 0$ T_{cal} value > T_{table}= 1.66at 98DF 0.05 Level of Significance 31.58>1.66Null hypothesis rejected. As null hypothesis is false means alternative hypothesis accepted T_{cal} value > T_{table} = 1.66 at 98 DF 0.05 Level of the significance 31.58> 1.66 Youth players might be good in FATIGUE INDEX as compares to senior players.

Result:-T_{cal} value > T_{table} = 1.66 at 98 DF 0.05 Level of significance 31.58>1.66 Which means that senior Kabaddi Players differs in the FATIGUE INDEX compared to the youth players and youth players will be good in FATIGUE Index as compared to the senior players.

Graph:- Average setting index of youth and senior Kabaddi Players



Above graph clearly indicates that fatigue index of youth and senior Kabaddi Players. The graph shows Fatigue index of senior Kabaddi Players wear comparatively good to their youth Kabaddi Players .No doubt both youth and senior Kabaddi Players had excellent fatigue index as per the norms of sprint Fatigue index .Fatigue index of youth was 86.99 and senior Kabaddi Players was 94.41 the difference between these two counterpart Fatigue index was found to be 2. 42 which is countable.

Conclusion

With the help of Graphical representation and statistical operations it could be concluded that fatigue index of the youth and senior Kabaddi Players was excellent but senior Kabaddi Players were much more sustainable than youth Kabaddi players in sprint fatigue index.

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