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Construction of norms for selected game related physical fitness variables of girls kho-kho players

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Abstract
The purpose of the study was to construct norms for female Kho-Kho players on selected physical fitness variables. The subjects were under 14 year kho-kho girls selected from the schools of Erode District. The variables selected for the study were endurance and leg explosive power which are the most important factors needed for the Kho-Kho players. The test items selected were 600 meters run/ walk and standing broad jump accordingly. Percentile scale was used to construct the norms on selected Physical fitness variables.

Keywords: Kho-Kho players, physical fitness, broad jump

Introduction
Kho-Kho is the famous indigenous game which is played in all the states of Tamil Nadu. Fitness variables such as speed and agility are very important for kho-kho players because nature of the game requires running for escaping from the opponents as well as changing the opponents. Many critics have described kho-kho as a game of speed. The importance of the speed, may it be a collective speed of the team or an individual speed is rightly highlighted. Agility is the sudden change of direction which is needed in order to shake off the opponents as well as to escape.
There were no specific norms for the game related fitness variables of kho-kho players. This motivated the investigator to conduct the study to construct the norms for school Kho-Kho players.

Statement of the Problem
The purpose of this study was to construct the norms for selected game related physical fitness variables for under 14 year kho-kho girls.

Delimitations
- The study was delimited to purposively 500 kho-kho girls (under 14 years)
- The study was delimited to selected Game Related Fitness variables were endurance and leg explosive power

Significance of the Study
1. This study may help to select the talented Kho-Kho players for the school teams.
2. This study may help the coaches to judge the teams.
3. This study may help to construct the training program.
4. This study may motivate further research study on norm construction related variables.

Review of literature
Mahendrasinh K Mandora (2016) [4] conducted a study on Construction of Physical Fitness Norms for College Students of Gujarat State. The purpose of the study was to construct physical fitness norms for college students of Gujarat state. For this study different colleges of Gujarat state were selected and only male college students are selected, 250 from each group i.e. 18-19, 20-21, 22-23, and 24-25 years are selected. For the purpose of study the variable selected was Explosive leg strength. Descriptive Statistics will be used. To construct physical fitness norms for college students of Gujarat State, Percentile scale and Hull Scale will be used.

To compare physical fitness variables among the students of four different age groups of college students of Gujarat State, Analysis of Variance (ANOVA) will be used at 0.05 level of significance. It can be seen that in the age group of 18 to 19 years the highest performance of the students is 55, which comes in the frequency 268 to 278. In the age group of 20-21 years the highest performance of the students is 66, which comes in the frequency 97 to 109, and lowest performance is 0, which comes in the frequency 266 to 278. In the age group of 24 to 25 years the highest performance of the students is 69, which comes in the frequency 97 to 109, and lowest performance is 0, which comes in the frequency 266 to 278. So, the researcher concluded that the performance of the student is best in the frequency 97 to 109, which is 265, and the lowest performance is 2 which come in the frequency 266 to 278.

Methodology

To achieve the purpose, kho-kho girls from erode district were selected as subject for this study. The age group of the subject was between 11 to 14 years. The scholar in this study selected certain game related physical fitness variables for the selection of the students for the school team. The selected variables were endurance and leg explosive power. Administration of test and method of collection of data are explained here.

Statistical Analysis

The data collected by administering tests was statistically treated to form norms for under 14 year kho-kho boys. In order to construct the norms on the selected variables, Hull Scale was used. To analysis the data, mean and standard deviation were used.

Analysis of data and results of the study

The calculated mean and standard deviation of 600 meters run/ walk performance were 1707.20 and 164.21 respectively. The percentile scale was constructed for 30 Meters Run performance for 14 year girls has presented in Table 1.

Table 1: Meters Run performance for 14 year girls

Percentile	10	20	30	40	50	60	70	80	90	100
	1050.35	1214.56	1378.78	1542.99	1707.20	1871.41	2035.62	2199.84	2364.05	2528.26

On the basis of the above constructed table the subjects were given qualitative grading as shown in Table 2.

Table 2: Shown qualitative grading

Score	Qualitative Grading	Number of Subject in Each Case
25 and below	Failing	285
26 to 35	Below Average	
36 to 50	Average	
51 to 65	Above Average	215
66 to 75	Good	
76 and above	Outstanding	

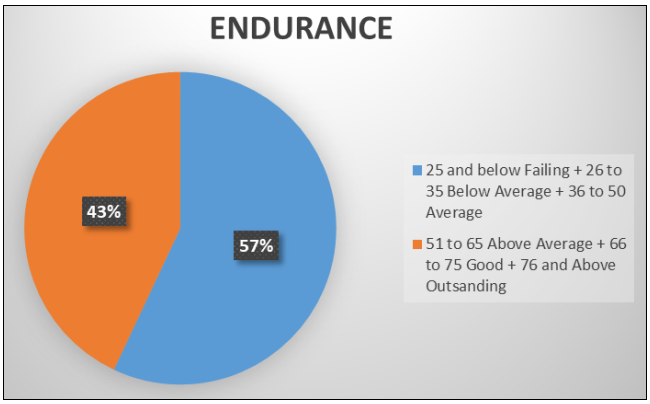

Fig 1: The performance of 600 meter run/walk (endurance) for under 14 Kho-Kho girls

The calculated mean and standard deviation of standing broad jump performance were 1.58 and 0.21 respectively. The percentile scale was constructed for Shuttle Run (agility) performance for under 14 year kho-kho girls has presented in Table 3.

Table 3: Shows the performance of the under 14 year kho-kho girls

Percentile	10	20	30	40	50	60	70	80	90	100
	0.73	0.94	1.16	1.37	1.58	1.79	2.01	2.22	2.43	2.64

On the basis of the above constructed table the subjects were given qualitative grading as shown in Table 4.

Table 4: Shown qualitative grading

Score	Qualitative Grading	Number of Subject in Each Case
25 and below	Failing	47
26 to 35	Below Average	
36 to 50	Average	186
51 to 65	Above Average	239
66 to 75	Good	28
76 and above	Outstanding	

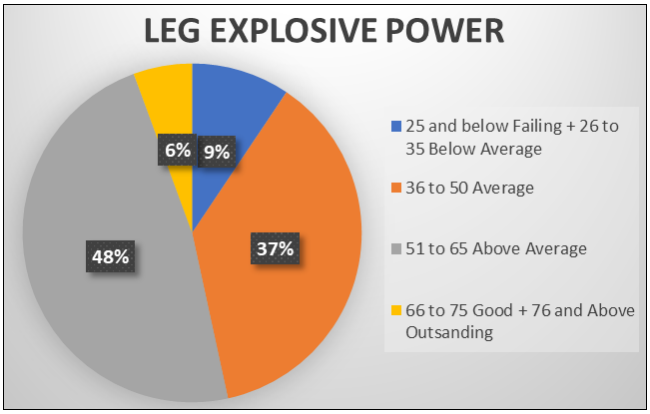

Fig 2: The performance of leg explosive power (standing broad jump) for under 14 Kho-Kho girls

Conclusion

On the basis of the percentile norms in the performance of 600 meters run/walk and standing broad jump for under 14 year kho-kho girls.

1. As per qualitative grading it was found that out of 500 subjects in School girls in the 600 yard run; walk test, 285 subjects (57%) were in the failed, below average and average, 215 subjects (43%) were in above average, good category and outstanding category.
2. In Standing Broad Jump test, 47 subjects (9.4%) were in the failed and below average category, 186 subjects (37.2%) were in average category, 239 subjects (47.8%) were in the above average, 28 subjects (5.6%) were in the good category and outstanding category.

Recommendation

1. A similar study may be conducted to construct norms for the different age level boys and girls at school college level.
2. A similar study may be conducted to construct norms for Physiological, Psychological and remaining related physical fitness of Kho-Kho players.
3. A similar study may be conducted to construct norms for the performance variables of different major games.

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