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**A Comparative Study on Selected Physical and Physiological Parameters
of Gulbarga University Kalaburgi and Karnataka University Dharavadi
Men Handball and Basketball Players**

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Introduction:

Physical fitness and physiological parameters and sports have been part of human life almost since the time immemorial. Be it a necessity for his survival i.e. hunting for food, shelter and safety from wild animal or other enemies, or as a pursuit of pleasure. The games and sports have been indispensable to mankind, and have become part of the culture. The games and sports are a great unifying force and have tremendous effect on the national and international integration. Through the origin of sports is lost in antiquity, it is quite certain that physical activity has been a part of the life of even primitive men. For him it might have been a basic necessity of life, more than fun and diversion, for his survival depended on it. Hunting, fishing, hurling missiles were activities on which his survival depended. Gradually along with the process of evolution, such activities became more of play and became part of the culture of the tribes. People use sports and games as a mode of transmitting the cultural heritage of their tribes. Games sports and physical activities persisted despite the rise and fall of ancient civilizations and became strongly embedded in the history of civilization as a culture heritage, which was passed on from one generation to another. Today, games and sports have emerged as universal cultural phenomena. Sports and games propagate the feelings of nationalism and help in creating a new generation of individuals with the feelings that the difference based on caste, community and religion have no meaning and faith in love and peace, in purity, in the feeling of goodwill and brotherhood serves to a greater extent towards humanity. Sports and games provide a common platform where sportsperson for different regions, professing different religions and faiths, speaking different languages, having different customs and traditions interact with each other in a harmonious and congenial atmosphere where they forget all their differences and emerge as a homogenous group. Such type of thinking, insight and mental approach can play positive role in nation integration. Sports and games help in creating such understanding and can play a very decisive and pivotal role in bringing about national integration. The main purpose of this study will be to compare selected Physical fitness and physiological parameters variables of Gulbarga University, Kalaburgi, and Karnataka University, Dharavadi Handball and Basketball Players. On the basis of available literature and the researcher's own knowledge, about the problem, it is hypothesized that there will be significant difference in Physical fitness and physiological parameters variable of Gulbarga University, Kalaburgi, and Karnataka University, Dharavadi Handball and Basketball Players.

Objectives of the Study:

1. To find out the level of Physical fitness and physiological parameters variables of Gulbarga University, Kalaburgi, and Karnataka University, Dharavad Handball and Basketball Players.
2. To assess the significant differences of selected Physical fitness and physiological parameters, variables of Gulbarga University, Kalaburgi, and Karnataka University, Dharavad Handball and Basketball Players.

Hypotheses of the Study:

- There would be better level of Physical fitness and physiological parameters variables of Gulbarga University, Kalaburgi, and Karnataka University, Dharavad Handball and Basketball Players.
- There may be significance difference of selected Physical fitness and physiological parameters variables of Gulbarga University, Kalaburgi, and Karnataka University, Dharavad Handball and Basketball Players.

Review of Related Litrature

Akram eshankalati and c. venkatesh (2013) the purpose of the study to determine the relationship between psychomotor variables and performance in elite female hand ball players. 120 hand ball players (* age 18 to 25 years, height 166.76 ± 3.89 cm and weight 64.45 ± 4.15 kg; mean + SD) participated in this study. The result of this study showed significant correlation between elite female hand ball players performance and flexibility ($r = .250$ p and explosive power ($r = -.295$, $p < .001$). there was a significant correlation between psychomotor abilities and performance in elite female handball players.

Keyword: psychomotor variables, performance and handball players.

Rawal (1999): Conducted a study on coordinative abilities on 15 male Basketball players and 15 Handball players of L.N.I.P.E with the purpose to compare the coordinative abilities Of Basketball and Handball players. The variables selected for the study were Orientation ability, Differentiation ability, Reaction ability, Balance ability and Rhythm ability. The comparison of various selected coordinative ability was done by using ‘test. On the basis of the results following conclusions were drawn.

1. Basketball and Handball players differ significantly in Balance ability and Reaction Ability.
2. Basketball and Handball Players do not differ significantly in Orientation ability.

Variables:

S.No	VARIABLES OF PHYSICAL FITNESS	TEST	EQUEPMENTS
1.	Explosive Strength	Upper Body Strength	Barbell & Pelts
2.	Agility	Illionis agility test	Stop watch
3.	Flexibility	Sit and reach test	Pad, Pencil, measuring tape

S.No	VARIABLES OF PHYSIOLOGICAL PARAMETERS	TEST	EQUEPMENTS
1.	Systolic pressure,	High Blood Pressure	Blood Pressure Monitoring
2.	Diastolic pressure	Low Blood Pressure	Blood Pressure Monitoring
3.	Hemoglobin (Hb%)	<i>Hemoglobin Percentage</i> {HB% }	<i>Hemoglobin Meter</i> <i>or Mission Meter</i>
4.	Resting pulse rate	Pulse Rate	Stop Watch

Sample Selection:

To achieve the purpose of the study a group of 200 (N=200) male subject aged between 18 to 28 years, how participated in the Gulbarga University, Kalaburgi, and Karnataka University, Dharavad Handball and Basketball players. Competitions will be selected on the random sample method from two University, Gulbarga University, Kalaburgi, and Karnataka University, Dharavad Handball and Basketball players.

Sample Design:

UNIVERSITYS	BASKETBALL PLAERS	HANDBALL PLARES	TOTAL
GULBARGA UNIVERSITY KALABURGI	50	50	100
KARNATAKA UNIVERSITY DHARAVAD	50	50	100
GRAND TOTAL	100	100	200

The statistical analysis of the data gathered for the comparison of physical fitness and physiological parameters of Gulbarga University, Kalaburgi, and Karnataka University, Dharavad Handball and Basketball players. Analyzed by using statistical independent „t” test. To testing the hypothesis the level of significance at 0.05 level of confidence was considered adequate for the purpose of this study.

Selection of Tests:

- ✚ **Physical Fitness Measurement:** Explosive Strength
 - Purpose to Assess the Upper Body Strength
 - Equipments used
 - Barbell & Pelts

1. Purpose to Assess the Upper Body Strength

Procedure

Using bench press subject, from a supine position on the bench, grasps the bar with an overhead grip with the hands approximately shoulder width apart. Subject lifts the bars from the bench and pulls them down to the chest, then extends the elbow fully, but does not lock them. To get 1rm, subject warms up himself by performing 5-10 reps with 30-40% of body weight and rests for one minute, then adds 4-9 kg weight so that he can lift it in 3-5 reps and rests for 2 minutes and again adds further 4-9 kg weight so that he can lift it in 2-3 reps and rests for 2-4 minutes, then keeps adding weight until he can lift the weight correctly just one time.

Physiological Parameters Measurement: Systolic Pressure

- Purpose to Assess the **High Blood Pressure**
- Equipments used
- Blood Pressure Monitoring
- Equipments used

2. Purpose to Assess the High Blood Pressure

Procedure

Blood Pressure is Measured First, a doctor or other health professional wraps a special cuff around your arm. The cuff has a gauge on it that will read your blood pressure. The doctor then inflates the cuff to squeeze your arm.

After the cuff is inflated, the doctor will slowly let air out. While doing this, he or she will listen to your pulse with a stethoscope and watch the gauge. The gauge uses a scale called “**millimeters of mercury**” (mmHg) to measure the pressure in your blood vessels.

Another option is to get a blood pressure measurement from the machines available at many pharmacies. There are also home monitoring devices for blood pressure that you can use yourself.

Blood pressure is measured using two numbers. The first number, called **systolic** blood pressure, measures the pressure in your blood vessels when your heart beats. If the measurement reads 120 systolic and 80 diastolic, you would say “120 over 80” or write “120/80 mmHg.”

Were presented in tables,

Table1.

Mean, Standard deviations, and ‘t’ value of Explosive Strength of Gulbarga University, Kalaburgi, and Karnataka University, Dharavadi Handball and Basketball players.

S.No	Groups	N	Mean	S,D	‘t’ Value
1	Male Handball Players	50	33.85	4.57	12.85
2	Male Basketball players	50	46.00	4.86	

*Significant at 0.05 level of confidence, Tabulated „t” value 3.18.

Table 1 showed that the mean and standard deviation of Gulbarga University, Kalaburgi, and Karnataka University, Dharavadi Handball and Basketball players. Handball and Basketball Players of explosive strength were 33.85, 46.00 and 4.57, 4.86 respectively which showed that there is a significant difference in explosive strength of Gulbarga University, Kalaburgi, and Karnataka University, Dharavadi Handball and Basketball players. Basketball players have more explosive strength.

strength than Handball. When these scores were subjected to „t“ test gives out calculated value 12.85 which was higher than tabulated value at 0.05 levels. Therefore it reveals that there is highly significant difference in explosive strength of Gulbarga University, Kalaburgi, and Karnataka University, Dharavad Handball and Basketball players

Table2.
Mean, Standard deviations and‘t’ value of Systolic Pressure of University Level Handball and Basketball Players.

S.No	Groups	N	Mean	S ,D	‘t’ Value
1	Male Handball Players	50	102.76	10.31	.235
2	Male Basketball players	50	103.22	9.20	

*Significant at 0.05 level of confidence, Tabulated „t“ value 3.18.

Table 2 Showed that the mean and standard deviation of Gulbarga University, Kalaburgi, and Karnataka University, Dharavad Handball and Basketball players. Of systolic pressure were 102.76, 103.22 and 10.31, 9.20 respectively which showed that there is partial difference in systolic pressure of Gulbarga University, Kalaburgi, and Karnataka University, Dharavad Handball and Basketball players. The mean of both groups“ players have approximately similar systolic pressure. When these scores were subjected to „t“ test gives out calculated value .235 which was lower than tabulated value at 0.05 levels. Therefore it reveals that there is no significant difference in systolic pressure of Gulbarga University, Kalaburgi, and Karnataka University, Dharavad Handball and Basketball players.

Collection of Data:

The sample consisted of 50 male Gulbarga University, Kalaburgi, and Karnataka University, Dharavad Handball and Basketball players. Of each game and their aged ranged between 18 to 28 years. All subjects had participated in Gulbarga University, Kalaburgi, and Karnataka University, Dharavad Handball tournament, held at Gulbarga University, Kalaburgi, and Karnataka University, Dharavad, Basketball tournament held at Gulbarga University, Kalaburgi, and Karnataka University, Dharavad respectively. The players were informed about the essence of the studies planned, and they as well as their coaches consented to voluntary testing. The subject selected for this study was 50 male Handball and 50 male Basketball players of various University teams for collection of data. The sample considers Revising 100 subjects selected by simple random sampling method. The selected physical fitness variables are explosive strength and physiological parameters in variables are systolic pressure,

Analysis of Data And Interpretation Of Results:

The analysis of data and interpretation is done based on the stastical results and findings. Further the results are discussed as per the following steps,

1. Analysis of Explosive Strength **test** among Handball and Basketball Players of Gulbarga University Kalaburgi, and Karnataka University Dharavad.
2. Analysis of Systolic Pressure among Hand Ball and Basket Ball players Gulbarga University Kalaburgi and Karnataka University Dharavad.
3. The research finding of some physical fitness parameters indicated significant difference between Gulbarga University Kalaburgi, and Karnataka University Dharavad. The Explosive Strength expressed significant difference. The Explosive Strength of Gulbarga University Kalaburgi, and Karnataka University Dharavad. Handball players more than Basketball players, which due to quick and speedy movement in catching and blocking.

4. It is hypothesized that there were significant difference in Explosive Strength **and** Systolic Pressure variables of Gulbarga University Kalaburgi, and Karnataka University Dharavad. It is also hypothesized that there were insignificant difference in others physical fitness and physiological parameters variables of Gulbarga University Kalaburgi, and Karnataka University Dharavad.

Conclusions:

1. There is a significance difference in the Explosive Strength between Gulbarga University Kalaburgi, and Karnataka University Dharavad.
2. There is a significance difference in the physical fitness and physiological parameters between Gulbarga University Kalaburgi, and Karnataka University Dharavad.
3. On the basis of finding and within the limitation of present study the following conclusion has been drawn.
4. From Table 1 it was seen that there is significant difference in Explosive Strength of Gulbarga University Kalaburgi, and Karnataka University Dharavad.
5. From Table 2 it was seen that there is no significant difference in systolic pressure of Gulbarga University Kalaburgi, and Karnataka University Dharavad. Handball and Basketball Players.

Recommendations:

1. It is recommended that based on the study results coaches and trainers can prepare scientific training programmers for better performance of Hand ball and Basket ball players, in the Kalaburgi, Ballary, Raichur, Yadgiri, Bidar, and Koppal, Districts.
2. The data and results can be utilized by concerned Hand ball and Basket ball federation / association of Karnataka and India in general for talent identification in Hyderabad
3. Are made on the basis of the results from the study which may be useful for the future research work. The study may be repeated to other Physical fitness and physiological parameters variables on the same subjects. The similar study may be repeated on the female subjects. The same study may be repeated on the other class of the society for different Airy and same age groups the similar study can be carried out on the total Physical fitness and physiological parameters the study can be carried on the basis of different regions. The study may be conducted on the basis of different types of profession.

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