



EVALUATION OF PHYSICAL FITNESS LEVELS OF MALE AND FEMALE VOLLEYBALL PLAYERS OF KARNATAKA

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ABSTRACT:-

Ball games require far reaching capacity including physical, specialized, mental and strategic capacities. Among them, physical capacities of players apply checked consequences for the ability of the players themselves and the strategies of the group. Thusly players must have the physical capacities to take care of the demand of the game. Volleyball is a standout amongst the most prominently played amusements on the planet. Tragically, the level of execution of the Indian volleyball players falls a long ways behind the worldwide standards. **Point of the Study:** The present investigation was planned to evaluate adaptability, strong continuance, control and cardio-respiratory perseverance of volleyball players and to contrast the outcomes and age coordinated controls. Likewise, to look at the discoveries of the volleyball players with that of the universal standards from the accessible writing and to make a few recommendations for the change in their execution level. **Material and Methods:** The investigation was completed in 40 male volleyball players matured between 17 to 26 years and 40 ages coordinated male controls. Physical fitness parameters to be specific adaptability, solid perseverance, control and cardio-respiratory continuance were estimated, information was dissected utilizing unpaired *t* -test. **Results:** It was watched that all physical fitness parameters were fundamentally more in players when contrasted with their matured coordinated controls however when estimations of the subjects were contrasted with worldwide standards; our subjects were behind the suggested standards for the first class volleyball players. **Conclusion:** The volleyball players have more preferred standpoint of adaptability solid continuance, control and cardio-respiratory perseverance.

KEYWORDS: Flexibility, Muscular Endurance, Power, Cardio-Respiratory Endurance, Bicycle max.

INTRODUCTION :

Volleyball is an astounding all-round group activities have been generally acknowledged as much focused and in addition recreational diversion all through the world. It is currently perceived as a standout amongst the most amazing and emotional games of the Olympics from players and onlookers see point. The round of volleyball is execution situated. The execution of best class volleyball players is the aftereffect of communication of various variables which incorporates physical, physiological and mental demands too. Volleyball execution includes more than physical abilities, a portion of the essential mental factors moreover. Such factors are obvious when we witness an unrivaled show of aptitude by a player in one event and



at that point, on a different event see that same player attempts after a blunder.

In the present focused society, mentors depend vigorously upon the accomplishment of their particular group. Mentors endeavor to understand to why some of their competitors work harder than others and how to get all the colleagues to work powerful together as one firm unit. Generally, attachment has been distinguished as the most critical little gathering variable. Additionally union has been the question of logical investigation in the two Sports and Exercise Psychology. The term union is gotten from the Latin word 'cohaesus' which implies to divide or stick together. In the same way as other social develops, union has been characterized in an assortment of ways. Festinger characterized it as "the aggregate field of power that follow up on individuals to stay in the gathering". In Sports Psychology Carron, Brawley and Widmeyer suggested that union is "a dynamic procedure i.e., reflected in the inclination for a gathering to stick together and stay joined in the quest for its objectives and goals.

RELATED LITERATURE

Observational research demonstrated that higher in assemble union was related with effective games execution had been appeared to be connected in a number of games including ball. Gardner et al., (1996) demonstrated that gathering union is guessed to decidedly impact execution and achievement. Lament (2000) found that execution has more effect on attachment than union has on execution. Spinks (1990) investigation of world class volleyball groups exhibited high adequacy groups performed essentially preferable in a focused competition over did groups with low levels of aggregate viability.

Criteria of Measurement of Physical Fitness:

1. Muscular Strength: Strength is the capacity to conquer protection or to act against protection. Maximal constriction energy of the muscles is known as solid quality. The solid quality is generally estimated as for singular gathering of muscles acting together. Strong quality is tried with the assistance of dynamometers and additionally tensiometers which measure the measure of power applied in a solitary exertion by a specific gathering of muscles. The dependable and substantial assessment of hand quality gives a target file of general abdominal area quality. The power hold is the aftereffect of compelling flexion of all fingers joint with the most extreme willful power that the subject can apply under typical bio-dynamic conditions. The synergistic activity of flexor and extensor muscles and the exchange of muscle gather is an imperative factor in the quality of coming about hold. Numerous variables impacts the quality of the grasp, including muscles quality, hand strength, weakness, time of day, age, nourishing status, limited movement and agony. Test: Pull Ups for Boys (AAHPER test thing) Purpose: To quantify arm and shoulder quality. Offices and supplies: A metal bar around 1.5 crawls in width is set at a helpful stature. In any case, for the lower age levels an entryway rec center bar can be utilized. All circumstances it might be important to extemporize by utilizing such equipment as a ball objective help or a stepping stool. Method: The bar is acclimated to such tallness that the understudy can hang free of the floor. The understudy should get a handle on the bar with his palms confronting far from his body (overhand handle). The understudy should then raise his body until the point when his jaw is over the bar and after that lower it again to the beginning position with his arms completely expanded. Guidelines: You should lift your knees or help your draw up by kicking. You should come back to the hang position with the arms completely straight. You won't be allowed to swing or snap your way up. Scoring: One point is scored each time the understudy finishes a draw up. Part scores don't tally, and just 1 trail is allowed unless it is clear the understudy did not have a reasonable shot on his first trial. Testing work force: Researcher directing the test and one partner recorded it.

2. Muscular Endurance: The term for which the muscle gatherings may perform work maximally is known as solid continuance. Strong perseverance, contingent on the class of solid wok, is additionally partitioned in two sorts: continuance of isometric and isotonic solid constriction. Test: twisted knee sit ups. Reason: To quantify muscular strength continuance. Offices and types of gear: Mat was utilized. System: The understudy lies level on the back knees bowed and feet on the floor with the rear areas close to 1 foot from the hindquarters. The knee point ought to be no under 90 degrees. The fingers are interlocked and put behind the neck with the elbows touching the floor. The feet are held safely by an accomplice. The understudies at that point twists up to a sitting position

and touch the elbows to the knees. This activity is rehashed however many circumstances as would be prudent in the time necessity. Directions: 1. Subject's fingers must remain interlocked and in contact with the back of the subject's neck consistently. 2. Subject's twist up from the beginning position, yet they may not push off the floor with elbow. 3. When they come back to the beginning position their elbows must be level on the floor or tangle. Scoring: One point is scored for each right sit-up. The score is the most extreme number of sit-ups finished. The score is the greatest number of sit ups finished in one time constantly. Three trials were given. Best of three trials was last score in number. Testing faculty: Researcher was leading the test and a collaborator recorded it.

3. Cardiovascular Endurance: Cardiovascular continuance might be characterized as the capacity of heart and lungs to take in and to transport sufficient measure of O₂ to the working muscles for exercises that included huge bulks to be performed over drawn out stretches of time. Cardiovascular perseverance has numerous equivalent words like cardio-respiratory continuance, circulatory respiratory continuance, cardiopulmonary continuance and so forth. The immediate testing of cardio-vascular perseverance is made by estimating one's high-impact power or most extreme oxygen take-up while by implication it is estimated with the assistance of long length exercises like center/long separation running, cycling, swimming and so on. Test: 600 yards run and walk test. Reason: To gauge cardiovascular continuance. Offices and hardware: A football field, four stamp and stopwatch. System: Students keep running in gathering of six people. Understudies may entomb space running with times of strolling and ought to be urged to pace themselves. Directions: Run 3 times around the square which had 50 yard arm beginning and end goal is at same point. Scoring: The score is the slipped by time in minutes and seconds. Testing Personnel: One starter gave begin, six prepared analyzers work the stopwatch and get out the circumstances and one right hand was recorded every one of the scores.

4. Speed: One's capacity to perform progressive development of a similar example at a quick rate is speed. Speed may likewise be characterized as velocity with which a development or progressive developments of a similar kind might be performed by a person. Speed of muscle withdrawal is an acquired quality however it can be enormously enhanced through preparing by appropriate strategies and rehearsing rapid development and their legitimate coordination. Speed is estimated by separating separation by time in short runs. Test: Speed for 50 - Yard Dash (AAHPER youth wellness test Item). Reason: To quantify speed. Offices and Equipment: A football field with same beginning line, and end goal of a 50 yards course and two stopwatches. Methods: i) after a short warm up period the understudy take a situation behind the beginning line. For best outcome 2 understudies keep running in the meantime in a focused inclination. ii) The starter utilizes the order, "Are you prepared?" and "Go!" The last is joined by a descending range of the arm as a flag to the clock. iii) The understudies keep running over the end goal. iv) 1 trail is allowed. Directions: 1. Understudy may take any situation behind the beginning line as they wish. 2. On the charge, "Go!" the understudy can keep running as quick as he can to cross the end goal. 3. Try not to moderate up until over the end goal. At that point understudy may back off bit by bit. Scoring: The score was the passed time as demonstrated in stopwatch between the beginning sign and the understudy crosses the end goal. Testing work force: One starter and 2 clocks are expected to oversee this test. One right hand scorer recorded the circumstances.

5. Agility: The speed with which an individual may change his body positions or quickness in changing ways while moving is known as deftness. It might be characterized as one's controlled capacity to alter body position and course quickly and precisely. Test: Shuttle Run. (AAHPER youth wellness test) Purpose: To quantify the readiness. Offices and Equipments: Two lines 30 feet separated and parallel to each other are set on the field. Since the understudy must overwhelm both of these lines, it is important to have a few feet a greater amount of room at either end. Four squares of wood, 2 by 2 by 4 inches and stopwatch. Method: i) The understudy remains at beginning and the lines with the 2 pieces set at the contrary line. ii) On the flag to begin, the understudy rushes to the piece, takes one, and comes back to the beginning line, and places the squares behind that line. iii) He at that point comes back to the second piece, which is conveyed over the beginning line in transit back. iv) Two understudies keep running in the meantime two trails are allowed. Guidelines: i) On the flag to "Go!" keep running as quick as the understudy can to the contrary line and get a square. ii) Student should restore the piece throughout the second line where understudy put it on the floor. iii) Do not toss it. iii) Return for the second piece, and this time understudy may keep running over the beginning line as quick as understudy can without

setting the squares on the ground. Scoring: The score is the slipped by time recorded in seconds, for the better of two trails. Testing work force: One starter begins this. Two prepared analyzer required significant investment and one right hand record the score.

6. Power: Ability to discharge greatest solid power in a dangerous way in the briefest term is known as strong power, for instance, standing expansive hop or vertical hop execution. Test: Standing Long Jump. Reason: To gauge control. Offices and Equipment: An estimating tape and a tangle. Space on the floor or an open air hopping pit. Strategy: The understudy remains behind a take disconnected with his feet a few inches separated. Before bouncing the understudy plunges at the knees and swings the arms in reverse. He at that point bounces forward by all the while broadening the knees and swinging the arms forward. Three trails are allowed.

1. Estimation is shape the nearest heel check to the departure line. Indoor organization is best expert by setting a measuring tape on the floor at right points to the departure line and allowing the understudy to bounce along the line. Estimation would then be able to be made by locating over the tape to the point of the hop. Guidelines: Must take off from the two feet at the same time, hop as far forward as could be allowed, and arrive on the two feet. Just the best trail is recorded. Testing faculty: Two analyzers expected to oversee this test and one scorer recorded the separation.

ON-COURT PERFORMANCE

Physiological factors, for example, heart rate and blood lactate ought to be estimated under field conditions with the goal that mentors can be given important data on the physical demands of the volleyball game. Data on examples of developments and activities performed by volleyball players amid the diversion ought to be likewise gathered and examined. These estimations allude to notational examination or time-movement examination, which are utilized to evaluate the number and sorts of developments performed by the players amid a diversion. Shockingly, we found no investigations utilizing time-movement examination, yet 2 contemplates looking at on-court physiological factors were found. Time-movement investigation in men's volleyball uncovers that most revitalizes last under 12 seconds, with a range of 3-40 seconds. Rest periods between revitalizes were too 12 seconds or less. In spite of the fact that it is speaking to imagine that volleyball energizes of female players are like those of male players, this can't be known without performing time-movement examinations in ladies' amusements too.

In one examination, heart rates amid volleyball hones and recreations were estimated in 6 nonlife female players. Heart rates amid training found the middle value of 134 bmin⁻¹ and went from 120 to 161 bmin⁻¹. Amid a genuine diversion, heart rates arrived at the midpoint of 139 bmin⁻¹ and extended from 116 to 172 bmin⁻¹. Mean heart rate was the most elevated amid spiking (138 bmin⁻¹) and least while serving (104 bmin⁻¹). For this little test, volleyball play gave off an impression of being just tolerably strenuous, with heart rates comparing to; 55-60% of $V_{O2\text{max}}$. In another investigation, lactate fixations were estimated in players of the primary German class in 1983-1984. Lactate esteems did not change altogether from pre to postgame and stayed around 2-2.5 m molL⁻¹. It was clarified by the creators of this examination that amid volleyball recreations, the greater part of the vitality necessities are provided by phosphate breakdown, with just a minor commitment from anaerobic glycolysis. In spite of the fact that this is hypothetically conceivable, more research is expected to understand the metabolic pathways being used amid female volleyball games.

MOLDING FOR VOLLEYBALL

The utilization of information from on-court execution considers and from tests inspecting strategies for enhancing physiological factors can empower quality and molding mentors to make valuable molding programs. In spite of the fact that a conceptualized audit on molding programs in volleyball is past the extent of this article, a short review is justified. A late audit by Hedrick recommended that a preparation program for abnormal state execution in volleyball must be particular to the necessities of volleyball. Exercise ought to be in light of developments that will happen amid a diversion. For case, sidelong developments are often performed in volleyball,

Table 1- Relationship between team cohesion and performance of winner's male volleyball university teams

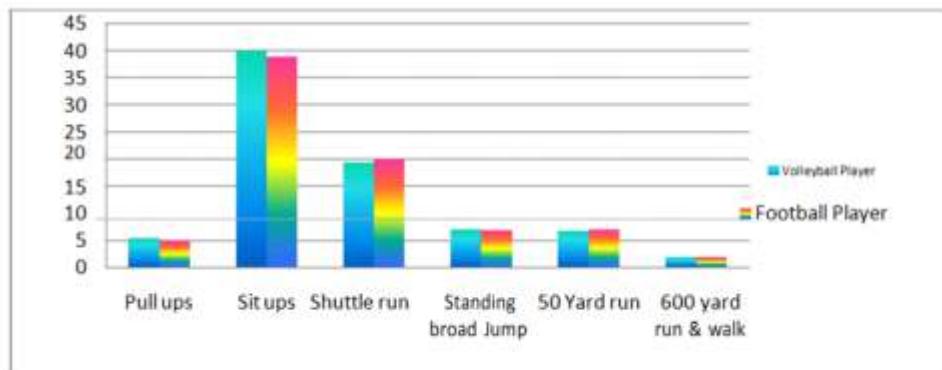
Items	Co-efficient Correlation
Individual Attraction to the Group-Task	.863*
Individual Attractions to the Group-Social	.643*
Group Integration - Task	.721*
Group Integration - Social	.576*

Table 2-Relationship between team cohesion and performance of loser male volleyball university teams

Items	Coefficient Correlation
Individual Attraction to the Group-Task	.362*
Individual Attractions to the Group-Social	.295*
Group Integration - Task	.328*
Group Integration - Social	.225*
* NS – Not	Significant

Table -1: Mean Of Components Of Physical Fitness Of Volleyball And Football Players

	Pull ups	Sit ups	Shuttle run	Standing broad Jump	50 Yard run	600 yard run & walk
Volleyball Player	5.33	39.86	19.32	6.90	6.7	1.82
Football Player	4.87	38.73	19.78	6.78	6.99	1.85

**Figure - 01: Mean comparison of physical fitness variables**

MATERIALS AND METHODS

To set up the connection between bunch union and execution of Male volleyball players, Group Environment Questionnaire was directed to two winning groups (finalists) comprising of 12 players on each group and two failures groups (non finalists) who had no place in the competition. The Group Environment Questionnaire (GEQ; Carron, Widmayer and Brawley, 1985) is a 18 thing instrument estimating competitor's impression of group attachment. Four sub scales are contained inside the survey: Individual attractions to Group – Task (ATG – T), Individual Attraction to Group – Social (ATG-S), Group Integration – Task (GI-T) and Group Integration – Social (GI-S). Each scale thing is appraised on a 9 point Likert write scale running from 1

(unequivocally dissent), to 9 (Strongly concur). The gathering mix build speaks to the closeness, comparability, and holding inside the gathering overall. Alternately, "singular appreciation for gathering" speaks to the cooperation's of the thought processes taking a shot at the person to stay in the gathering. The errand build alludes to a general introduction toward accomplishing the gathering's objectives and destinations, though the social introduction is centered on creating and keeping up social connections inside the gathering. The poll was directed to two male volleyball groups, one was the champ of the college competitions and the other was the failure group. To assess the volleyball execution of the subjects, a 10 point rating scale was built and the evaluations were gotten from the specialists. To build up the connection between group attachment and execution of champs and washouts male volleyball college groups, Product Moment Correlation was connected.

DISCOVERIES AND DISCUSSION

The discoveries identified with the Individual Attraction to the Group-Task (4items in the poll), Individual Attraction to Group Social (5 things), Group Integration – Social (4 things) of the triumphant and losing groups are exhibited in Table - 1 and 2. The discoveries of the information in Table - 1 uncovers that there is critical connection between group attachment things with execution of winning male groups at college level. The discoveries of the information in Table - 2 uncovers that there is no huge connection between group union things with execution of losing male groups at college level.

Exchange

The discoveries of the present investigation demonstrated noteworthy connection amongst execution and Team Cohesion things of the triumphant male volleyball group. The execution in volleyball is nearly connected with abnormal state of specialized productivity and strategic introduction on occasion of emergency. The execution of the abilities in volleyball like administration execution, serve gathering, the set assault and guard are being performed exclusively by a player first. The following activity is being finished by another player like set, obligingly and at exactly that point the last and last touch being made by an assailant, who methodologies and bounces opportune, figuring the stature, speed and flight of the ball, tries to apply the strategic execution in making the ball to land on the adversary's court by deluding the safeguards. Thus to achieve accomplishment in each move of activity and counter activity, the cooperative individuals on the court must capacity independently first and then as a gathering. Here the part of attachment can be extremely well observed. Singular Attractions to Group-Task has been given accentuation to start with, at that point to the Group Integration-Task. Subsequently the execution in volleyball is firmly related with group union. The things of group attachment like Individual Attractions to the Group-Task have the higher coefficient relationship in the triumphant groups than that of the losing groups. The information uncovered that Group Integration social has been given last accentuation than Individual Attraction to the Group-Social and here additionally the triumphant groups have demonstrated noteworthy connections while contrasted with that of the losing groups.

The execution of the losing groups in every one of the components of the diversion were not in standard with winning groups and the discoveries of the information uncovered that the coefficient connection of the things of group attachment like Individual Attraction to the Group-Task, Group Integration-Task. Singular Attraction to Group – Social were discovered low contrasted with that of winning groups and were not huge.

The triumphant group has indicated amusement in execution in the majority of the components of the diversion like Attack, Block and Serve Placement, than the failures groups and has demonstrated much better group attachment moreover.

CONCLUSION

Noteworthy relationship was found between the execution and Individual Attraction to Group-Task, Group Integration-Task, Individual Attraction to Group-Social and Group Integration-Social of winning group. No critical relationship was found amongst execution and Individual Attraction to Group-Task, Group Integration-Task, Individual Attraction to Group-Social and Group Integration-Social of failure's group.

REFERENCES

1. Bertucci Bob. (1992) The AVCA Volleyball Handbook, Indianapolis: Master Press.
2. Blackburn J. (1985) Systematic program for the development of staff cohesion. In L.K. Bunker, R.J. Rotella, and A.S. Reilly (Eds.), Sport Psychology : Psychology consideration for maximizing sport performance (pp. 93-100). Ann Arbor, MI : McNaughton & Gunn.
3. Brawley L.R. (1990) International Journal of Sport Psychology. 21. 355-379.
4. Carron A.V. (1991) Social Psychology of Sports, Ithaca: Movement.
5. Carron A.V., Wid meyer, N.W. and Brawley (1985) Journal of Sport Psychology, 7, 244-266.
6. Carron A.V. (1982) Journal of Sport Psychology. 4, 123-138.
7. Carron A.V., Colman M.M., Wheeler J. and Stevens, D. (2002) Journal of Sport and Exercise Psychology, 24, 168-188.
8. Dhanaraj Hubert V. (1963) Volleyball for Men and Women, Calcutta: YMCA Publishing House.
9. Ghuman Paramjit Singh(1999) SAI Scientific Journal, Vol. XXII (1).
10. Selinger Arie. (1986) Power Volleyball, New York: St. Martin's Press.
11. Shields D.L., Gardner D.E., Bredemeier B.J. and Bostrom A. (1997) Journal of Psychology: Interdisciplinary and Applied, 131, 196-210.
12. Textbook for Coaches Course Level II, Lasussane:FIVB,1996.