

A Comparative Study on Movement Time among Handball Players and Volleyball Players at Hyderabad

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Abstract:

The study is the role of Volleyball skills in performing handball sport. This study is an in-depth analysis to explain the Volleyball and handball skills. This study conducts analysis to explain the how Volleyball skills help handball players to perform effectively in handball sport. The analysis of it clearly explains the similarities between Volleyball and hand ball skills. This study clarifies that the knowledge about the sport and the importance of it has to be explained.

Introduction:

Volleyball is an Olympic group activity in which two groups of 6 dynamic players are divided by a net. Every group

tries to score focuses by establishing a ball on the other group's court under sorted out principles. Play moves ahead as takes after: a player on one of the groups starts a rally by endeavoring to serve the ball (throwing or discharging it and afterward hitting it with a hand or arm), from behind the back limit line of the court, over the net and into the getting group's court.

The getting group should not let the ball touch their court; they may touch the ball upwards of three times, regularly utilizing the initial two touches to set up for an assault, an endeavor to direct the ball back over the net in such a route, to the point that the serving group is not able to keep it from touching their court.

The rally proceeds in the same way, with every group permitted upwards of three sequential touches, until either (1): a group makes an execute, establishing the ball on the adversary's court, therefore winning the rally; or (2): a group submits a deficiency, accordingly losing the rally. The group that wins the rally is recompensed a point, and serves the ball to begin the following rally.

The complete guidelines are broad; a couple of the most well-known shortcomings include: Causing the ball to touch the ground outside the opponents' court or without first passing over the net;

- Catching and throwing the ball;
- Double hit: two consecutive contacts with the ball made by the same player;

- Four consecutive contacts with the ball made by the same team.

The ball is usually played with the hands or arms, but players can legally strike or push (short contact) the ball with any part of the body.

HANDBALL:

Handball is a team sport played by two male or female teams. The players are allowed to handle and throw the ball using their hands, but they must not touch the ball with their feet. The objective of the game is to score and avoid getting goals. The team that scores more goals in a given period of time wins the match. The game is played at a very high speed and body contact is permitted. As a result, Fair Play has a central importance. Basic handball is either played in a sports hall or outdoors

on a 40x20 meter court. The other variations of the game, such as Mini handball, Beach Handball or Wheelchair Handball, are all based on the fundamental rules of the game, although both facilities and rules shall be adapted to their needs.

Handball is a combination of Basketball, Soccer and Netball. It is played indoors on a court about the size of two basketball courts. At the each end of the court is a net which is 9 feet wide by 6 1/2 feet high. The object of the game is simply to score more goals than the other team.

Statement of the Problem:

To study the performance and ability in performing the volleyball skills and perform the various methods of improving self confidence. to investigate the Effect of self confidence and mental fitness on accuracy of performing volleyball skills and the methods in

improving self confidence. To analyse and differentiate the performance skills before and after improving the self confidence.

METHODS:

All twenty participants had normal or corrected to normal vision. The sample consisted of 10 junior volleyball and handball experts (10 male (expert group), mean age = 23.87, SD = 5.26) and 10 volleyball experts (10 male (control group), mean age = 25.69, SD = 4.19).

All twenty experts were playing in one of the two matches in Hyderabad in their respective sport and had experience only at a recreational level in the sport in which they were not an expert. Junior volleyball experts had played an average of 22 tournament matches in a mean time period of 3 years, volleyball experts had a mean

experience of 5 years and 43 matches.

Both groups did not differ significantly

in any of the reported characteristics.

The study was approved by the local

ethics committee at the Osmania

University.

DESIGN OF STUDY:

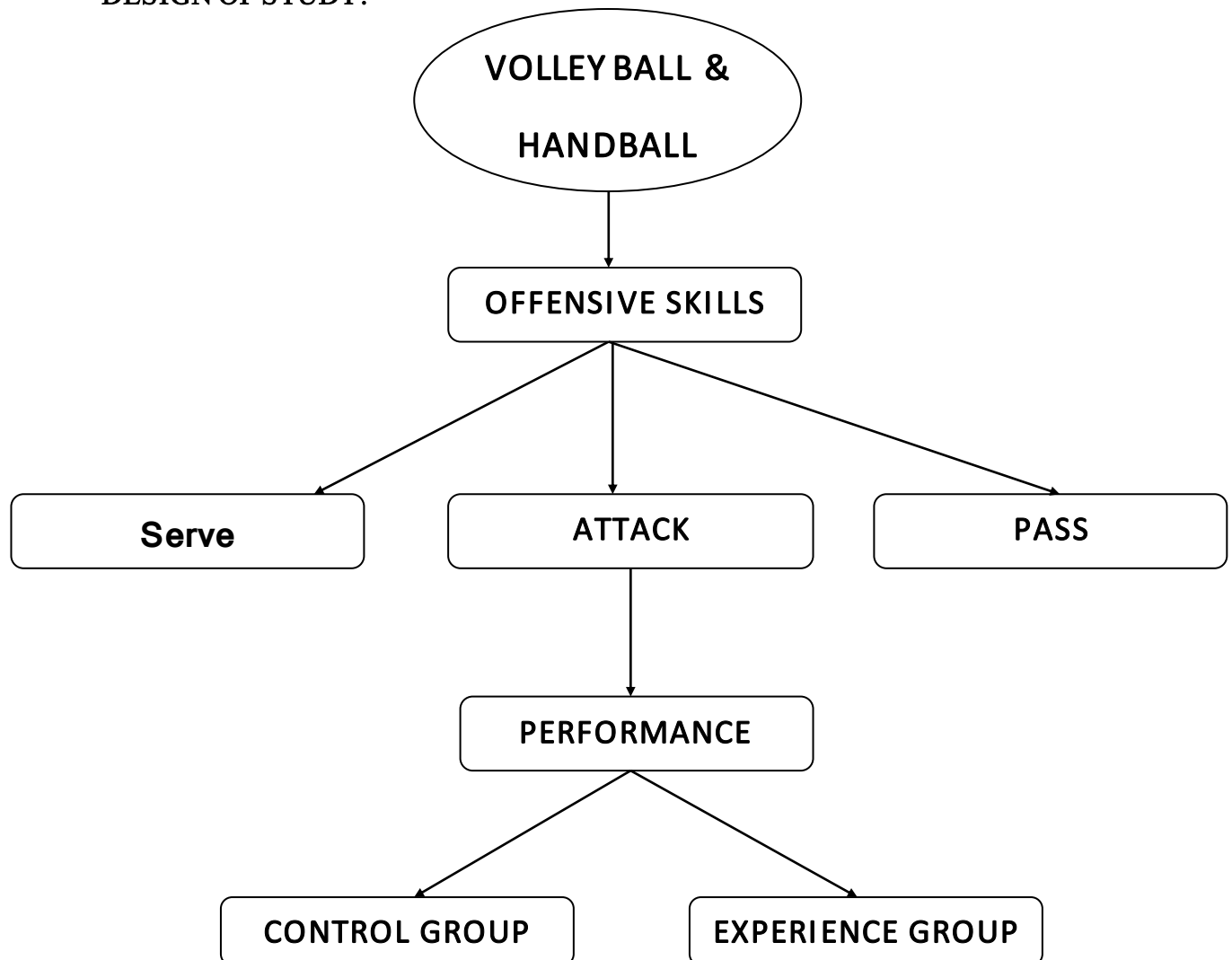


Figure 1: System Flow

SAMPLE OF THE STUDY:

For the present study, sample consider

will between divided in two equal

groups each group consists of 10

players. A coordingly the data will be

collected during the month of February
to May 2016.

TOOLS TO BE USE:

1- Volleyball court

2- Attack volleyball test

3- Serve volleyball test

4- Pass volleyball test

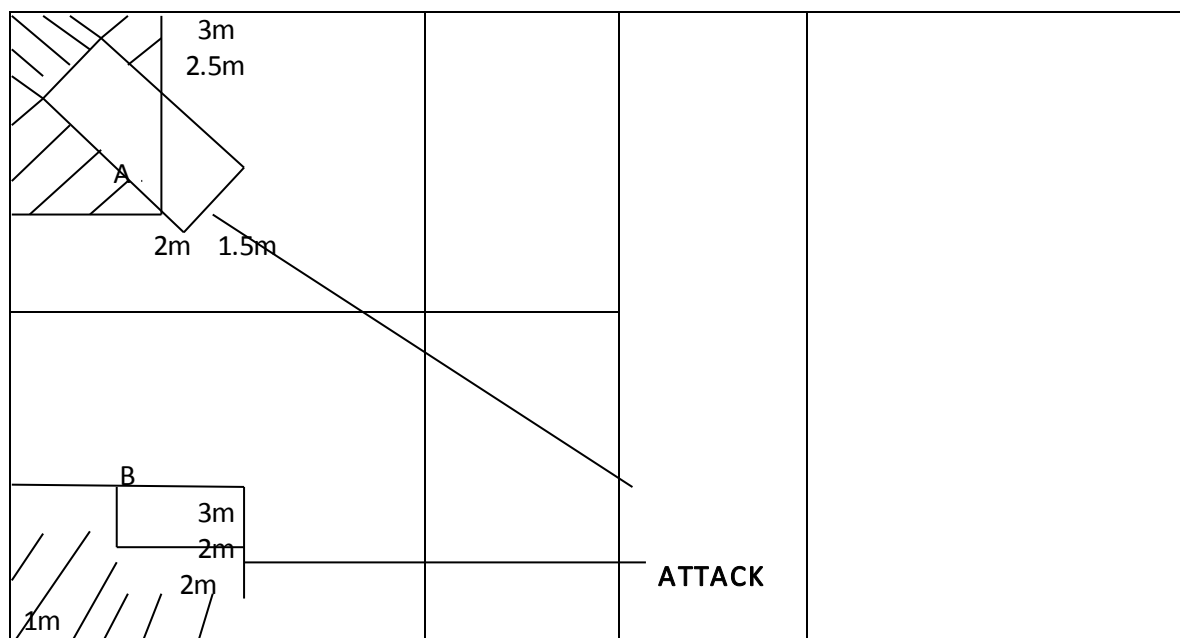
5- Volleyball

6- tape

TABLE 1: showing the sample of the study:

Si. No	Name of the category	Number of the subjects
1	Control group	10
2	Experimental group	10

Net



TIME SCHEDULE:

The proposed study will be completed within 3 months. The Practice Visualization takes you through a normal Volleyball hone. Warming up, going through drills - the Visualization permits you to see yourself being effective by and by. Furthermore, the more you see yourself as somebody who prepares hard, handles the ball well, and executes effectively - the less demanding it gets to be to perform at that level physically. You LEARN to practice like a CHAMPION.

COMPETITION VISUALIZATION

Ordinarily, competitors hone to a great degree well just to contend ineffectively or beneath their potential. Regularly this is because of rivalry tension and the way that they contend a great deal less much of the time than honing. The Competition Visualization gives you the

chance to see yourself in a wide range of rivalry situations - listening to the group, seeing your adversaries, getting settled in new venues, responding to distinctive circumstances. Also, the more times you see yourself in specific circumstances, the more agreeable and loose you will get to be. As you envision, you take away the obscure, diminishing rivalry tension and expanding your potential for Peak Performance with expanded certainty.

RELAXATION VISUALIZATION

It is critical in both the physical and the mental parts of the game to be casual. Anxiety and strain just square your body and psyche from crest execution. The Relaxation Visualization guides you to a profound condition of unwinding working from the toes to the head, discharging strain and anxiety from your muscles and helping you to clear your psyche. Once in a condition of

unwinding, your psyche and innovative creative ability have the capacity to take in the Practice or Competition Visualization at a more elevated amount. After just a couple times through the Relaxation Visualization, you will see how to rapidly and easily unwind yourself and diminish pressure.

THE BODY ACHIEVES WHAT THE MIND BELIEVES....

Representation is just the demonstration of envisioning yourself performing abilities with immaculate shape and impeccable execution. There are a wide range of approaches to envision and there is no wrong way. You can imagine in a calm room or one with music playing. You can stand, sit or rests. You can imagine for a moment or 60 minutes. Whatever you do, verify you are in a spot with practically zero diversion or put on a few earphones to overwhelm the world. Close your eyes and start to

get a mental picture of what it might look want to have your rival serve you extreme. Envision yourself seeing the ball early, moving your feet, getting into flawless position and putting the pass right on top of your setter's head. Let the play proceed with and see the setter set the ideal ball to a hitter. Perhaps the hitter is you on the off chance that you are in the front column. Watch yourself get into position to hit, keeping the ball before you, seeing the square and the safeguard and putting the ball away for the execute. You are in the zone.

Picture yourself doing each aptitude in each turn for your forthcoming match. Regardless of the possibility that as a general rule you battle with a sure aptitude, imagine yourself having beaten it. Never imagine a negative result. In the event that you unintentionally see yourself shanking a pass, make a point to replay the point in your mind with a

positive completion. See yourself succeeding and your group doing great. Feel the feeling, consider how the group will sound, how the ball feels when you strike it. Put however much detail into your representations as could be expected. Watch yourself make the plays in moderate movement. Verify that you imagine not pretty much as though you were watching yourself on feature tape, yet as though you are in the amusement playing. See the ball coming at you as you will see it on the court

There are two key times when perception can be useful - before a match and amid a match. Set aside some time before you warm-up to get yourself into the zone. Whether you have five minutes, 15 minutes or 60 minutes, utilize the opportunity to see yourself playing and succeeding against you're rival. Consider what they will do to win and how you will react. Who is their key

player? See yourself material that player on numerous occasions. Watch yourself execute the aptitudes splendidly and see the positive result of the match. You can likewise utilize representation amid a match. You have a few moments in the middle of arouses and all the more amid a period out when your mentor has got done with tending to you and the group. In case you're on serve get you can see yourself making the ideal pass. In case you're serving, you can pause a minute to see yourself making an intense serve precisely to the spot you proposed. On the off chance that the amusement is hanging in the balance and set could come to you, see yourself getting the ideal position and putting the ball away. Perception can likewise be useful for practice or days before a diversion. Specialists say that perception ought to be done 2-3 times each week. The week prior to a diversion, you can take

yourself through a normal practice and the up and coming match. The expanded anxiety of competitions can make competitors respond both physically and rationally in a way that can contrarily influence their execution capacities. They may turn into strained, their heart rates race, they break into a cool sweat, they stress over the result of the opposition, they think that its difficult to focus on the assignment close by.

This has driven mentors to take an expanding enthusiasm for the field of game brain research and specifically in the zone of aggressive nervousness. That hobby has concentrated on strategies that competitors can use in the focused circumstance to keep up control and enhance their execution. Once took in, these procedures permit the competitor to unwind and to center his/her consideration in a positive way on the assignment of get ready for and taking

an interest in rivalry. Brain research is another weapon in the competitor's ordnance in picking up the triumphant edge.

Representation must be done well with a specific end goal to procure the advantages. It works best when the pictures are distinctive. When you can draw in every one of the faculties in your mental picture, it is more successful. On the off chance that you don't have quite a bit of a creative energy or on the off chance that you battle to make a clear mental picture in your brain, take a stab at watching a feature tape of somebody with flawless frame or take a gander at a photo or a feature of yourself executing an aptitude well before you close your eyes and begin to envision. Verify you place yourself in a peaceful spot without any diversions so you can focus on making your mental pictures.

For amateurs, verify that you gain from your mentor what immaculate structure is and what it would appear that. In the event that you are not certain, ask somebody who knows. Go watch a tip top group practice or watch a diversion on TV. It is basic that you envision yourself executing the expertise with flawless structure. Mental pictures of yourself with negative behavior patterns will fortify that unfortunate propensity and make it significantly harder to break.

VISUALIZATION SKILL:

Motor skills express the possibility to move in a way that each person is able. It's possible to identify conditional and coordinative abilities. Both depend on hereditary traits, but are also developed through motor activity. They are stable and long lasting and they are responsible for sport performance. An important

coordinative ability is visual spatial skill.

This ability is to prevent us getting lost and being able to read or build a map of the surrounding space. It is achieved and maintained by a complex set of sensory motor control systems that include: sensory input from vision, proprioception, and the vestibular system. To determine this ability, intrinsic individual components and environmental factors intervene.

As far as environmental stimulation is concerned, sport plays an important role. Motor response to various situation needs adequate spatial evaluation. In general, tactical preparation allows sports men to develop spatial skills, which are divided into 5 types: technical (minimal distance between striker and defender), tactical (space in the defense), projective (how much place the player has to move) dynamic (the real field maybe smaller

then player imagines) and topological (space on either side, behind and in front, above and below the player). These different perceptions justify how sport activity could improve attention levels and visual-spatial ability. The aim of this work is to verify if by practicing sport there are still gender differences between young athletes in two different sports (volleyball and junior volleyball) compared to a non-sport activity control group.

Execution

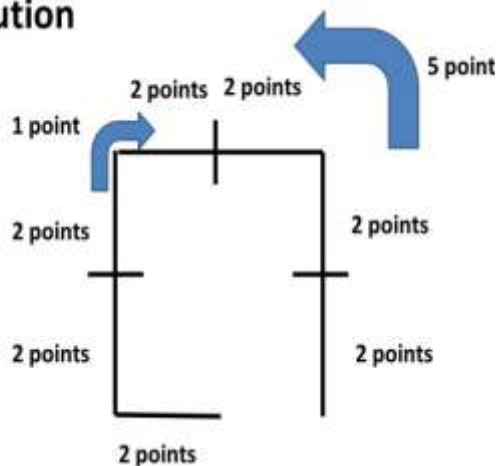


Figure 2: Route that the subject has to complete under vocal command during the first part of the test.

Reproduction

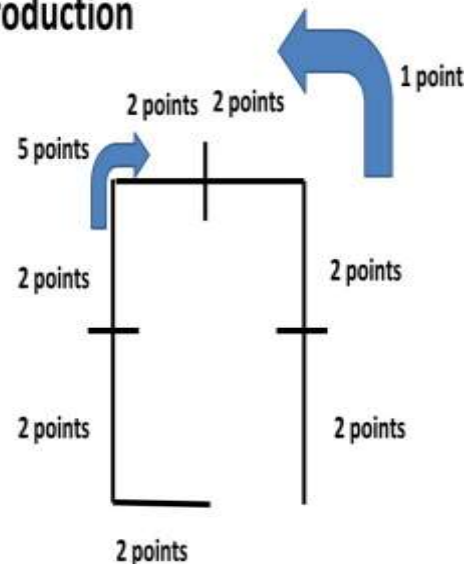


Figure 3: Route that the subject should be able to reproduce on paper during the second part of the test.

- During the 1st part, execution, the blindfolded subject has to carry out a command given by an examiner, memorize them and imagine the route taken to get back to the starting point. The route is square. The last command, to go back to the starting point, tests orientation skills.

□ During the 2nd part, reproduction, the subject has to reproduce on paper the route taken.

For each subject recruited we completed a file in which we reported the epidemiological data as well as the test results. The forms were entered into a database using FileMaker Pro software. We used the STATA MP11 software to analyse the data. Quantitative variables were expressed as mean and standard deviation. We used the t-student test for independent samples to compare the mean sex and sport activity. Furthermore, we performed multivariable regression models. For every test we considered a value of $p < 0.05$ to be statistically significant.

Task

Participants had to respond to four different conditions. In the Volleyball Anticipation condition, they watched

junior volleyball serves and were asked to anticipate the direction of the observed serve and subsequently indicate the perceived flight direction of the ball. In the Volleyball Anticipation condition, participants watched volleyball serves with the same instruction. In both anticipation conditions, the response was given by pressing the left or right button on a two-button response box. The left button indicated a ball flying to the left-hand corner and the right button a ball flying to the right-hand corner. To control for effects due to visual stimulation and the observation of biological movements, we added a Junior volleyball Observation and a Volleyball Observation conditions including the same two models in the same visual setting without any instruction for explicit anticipation. All responses in this study included motor reactions after

the respective observation condition. The ratio of correct left and right reactions was balanced across all four conditions.

Procedure

Participants were given instructions for the experimental conditions illustrated with sample. While lying in the scanner, participants had to complete 28 trials resulting in a total duration of 34 min for the whole experiment. The participants performance will be observed by performing a match between the two groups of 10 junior volleyball players (experimental group), 10 senior volleyball players (control group). The results will be observed.

Behavioral data acquisition and analysis

In each of the four experimental conditions, both correct answers and response times were analyzed with SPSS. To investigate the influence of expertise on the number of correct

responses, a 2×2 mixed ANOVA with Anticipation task (Junior volleyball Anticipation vs. Volleyball Anticipation) as repeated measures within-subject factor and Domain of expertise (junior volleyball experts vs. volleyball experts) as between-subject factor was performed. The same computation was employed for the response times. Additionally, t-tests within each group assessed whether the number of correct responses in the Junior volleyball and the Volleyball Anticipation condition were significantly above chance level.

Data analysis

The first-level analysis was computed for each participant separately on the basis of the general linear model (GLM). The signal was convoluted using the hemodynamic response function (HRF). Functional data were high-pass filtered with a cutoff of 128 s to remove slow signal changes. The correct and incorrect

trials of the four different experimental conditions (Junior volleyball Anticipation, Volleyball Anticipation, Junior volleyball Observation, and Volleyball Observation) as well as the instructions and the responses were entered into the model. Furthermore, six parameters resulting from the movement correction were added to the GLM as covariates. Autoregressive processing was applied to account for serial correlations.

In the second-level analysis, one-sample and two-sample t-tests were conducted. To identify brain activation correlated with the anticipation performance irrespective of the expertise of the participants, we introduced the parameter “percentages of correct responses in both anticipation

conditions” as a parameter to the contrast Junior volleyball and Volleyball Anticipation > Junior volleyball and Volleyball Observation for all 31 participants. To investigate the role of expertise during effect anticipation, the contrast (Expertise Anticipation > Expertise Observation) > (Novice Anticipation > Novice Observation) was analyzed with a two-sample t-test in both groups. In this contrast the common activation of both groups during the anticipation of serves of the own expertise sport compared to the sport the participants had no experience with was identified, whereas differences due to different stimuli were controlled by considering the control conditions (Expertise Observation and Novice Observation).

RESULTS:

Group Statistics

Groups		N	Mean Scores	Std. Deviation	Std. Error Mean
No. of volleys in 30sec	experimental junior group	10	18.42	1.49649	.33462
	control junior group	10	11.220	2.16673	.48450

Table 1: Group Statistics

Independent Sample Test

		t-test for Equality of Means			
		t	df	Sig. (2-tailed)	Mean Difference
No. of volleys in 30sec	Equal variances assumed	5.859	38	.000	3.45000

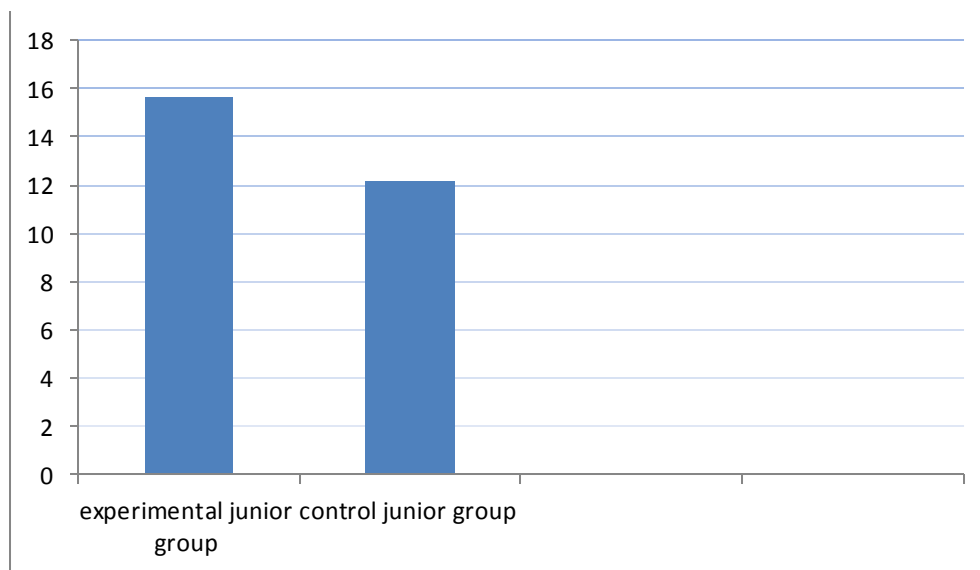
Table 2: Independent Sample Test

The calculated value of Mean on the above variable shows (number of volleys in 30 seconds) 15.65 and 12.2 respectively in among of experimental junior group and control junior group.

The calculated value of Standard deviation on the above variable shows (number of volleys in 30 seconds) 1.49649 and 2.16673 respectively among Government high school and control

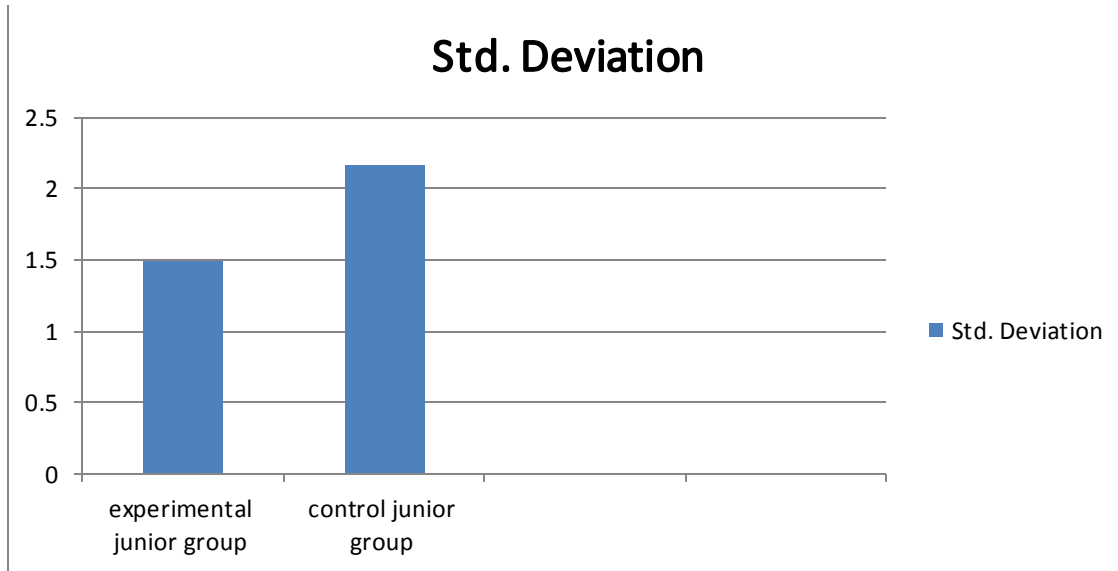
junior group. There is a little variation in the Mean value as control junior group have less than Government high school boys and this can be attributed that in this variable Experimental junior group are better than control junior group .

Comparison of Mean in volleying ability among government Junior Volleyball Players and Senior Volleyball Players.



The above figure shows that there is variation in volleying ability in volleyball in Hyderabad.

Comparison of Std. Deviation graphs



The above figure shows that there is visualization skills variation in volleying ability in volleyball in Hyderabad. The above graphs show the comparative analysis of Mean and Standard

Deviation in between experimental junior group and control junior group to show the difference in volleys ability in volleyball students.

SL.NO:	TEST	SCORES	
		Experimental Group (N = 10)	Control Group (N = 10)
1.	Attack volleyball test	20	10
2.	Serve volleyball test	25	14
3.	Pass volleyball test	28	16

The test results shows that the experimental group has scored more compared to control group. The experimental group performed attacks

scored 20, and serve scored 25, pass scored 28. Control group has performed attacks score 10, and serve scored 14, pass scored 16. The main results of this study showed that the visualization skills that discriminate in favour of victory are the serve point and surprisingly, blocking errors. On the other side, reception errors were the only variable that discriminated in favour of defeat.

Our results clearly point to the importance of the serve point in determining victory. This result becomes even more relevant when we pay attention to the value of its effect size (-1.10), which is quite high and allows for generalization of results. Because the teams are evenly balanced, when a match gets close to the end, this skill (serving) may be associated with victory. Our results confirm the observations of Zetou et al. (2007), who mention that the

ace (direct serve) is a predictor of victory in high performance teams.

In accordance with Marelic et al. (2004), the team that serves better has a tendency to win more sets. A more attentive analysis of the results highlights the fact that the number of serves that result in direct points was very low, but higher in the winning teams. Serve errors were also less frequent in winning teams. In fact, some researchers believe that teams that are at a disadvantage in the set take more risks while serving, probably because they have nothing to lose. By risking more strategically, these teams also end up failing more frequently, consequently increasing the percentage of errors made.

On the other hand, if the serve is risky, opponent reception will be more difficult, increasing error probability.

Our results discriminate reception error in defeat so the teams with low efficacy in this skill are more likely to lose the game. It is important, therefore, to increase the efficacy of the serve, since it is considered a terminal action (Marelic et al., 2004), and may result in a direct point. In that sense, we can infer that the serve is of crucial importance in the performance of volleyball teams. The importance of practicing this skill in the training process is quite clear.

To examination says Volleyball has turned into a greatly well known interest game around the world. Luckily, the frequency of genuine harm is generally low. The game particular movement most normally connected with damage is blocking. Lower leg sprains are the most well-known intense harm. Intermittent sprains may be less inclined to happen if a lower leg orthosis is worn. Patellar

tendinitis speaks to the most well-known abuse harm, in spite of the fact that shoulder tendinitis auxiliary to the overhead exercises of spiking and serving is additionally ordinarily seen.

A bizarre shoulder harm including the distal extension of the suprascapular nerve which innervates the infraspinatus muscle has been progressively depicted in volleyball players as of late. Hand wounds, generally happening while blocking, are the following most regular gathering of wounds. Luckily, extreme knee ligament wounds are uncommon in volleyball. In any case, foremost crutiate ligament harm is more prone to happen in female players. A considerable lot of these wounds may be preventable with close consideration regarding method in game particular aptitudes and some genuinely basic preventive mediation.

Literature regarding blocking skills in volleyball pointed to its importance for the match outcome (Afonso et al., 2010; Palao et al., 2004). Surprisingly, our results revealed that blocking errors discriminate in favour of victory. Errors in blocking may result in one of the following three situations: (1) point for the opposing team, (2) continuity of the match by the team itself (if the defense is good), or (3) continuity for the opposing team. According to these possibilities our results suggest that in high level balanced volleyball teams blocking errors result in more frequent continuity situations than in scoring points. The organization of the opposition's first line of defense, through strategies and triple block formations, may increase the probability of successful blocking. This fact may also be a consequence of the speed of the ball, the variability of the setting, and the trajectory, making it

difficult to effectively organize blocks (Afonso et al., 2005; Zetou et al., 2007).

The diversity of results that may arise when this skill is employed may explain why studies of blocking errors have yielded mixed results. A thorough analysis of our results shows that the winning teams made more blocks (block points and block errors).

Palao (2008) concluded that successful blocking offers more chances to win. In addition, the block is the first terminal action that the opposition may take to the opponent's attack, and may result in a direct point. Regarding reception errors, our results suggest that this factor, as would be expected, may be associated with defeat. Several studies have verified a positive association between efficacy in reception and the final result of the match. Even though reception is not a terminal action, a

perfect reception allows the setter to organize the team offensively with all the possibilities of attack, increasing the probability of winning the match (João et al., 2010). In elite teams, like the ones analyzed in the present study, the receiving players are very experienced, so only errors in reception discriminated for result.

The point of this paper was to give suggestions on how institutionalized strategy can be produced to measure abuse wounds in observation studies. Utilizing shoreline volleyball information, a "customary" accomplice study methodology utilizing a period misfortune damage definition recommended that harm danger was low. Interestingly, the information from an overview of over a significant time span torment issues in the shoulder, knees and low back showed that these were

predominant. The accompanying proposals are made: (1) studies ought to be planned, with consistent or serial estimations of side effects; (2) legitimate and delicate scoring instruments need to be created to quantify torment and other important indications; (3) pervasiveness and not frequency ought to be utilized to report damage chance; (4) seriousness ought to be measured in light of practical level and not time misfortune from games. All in all, new methodologies are expected to grow more proper strategy to evaluate abuse wounds in studies.

Conclusion:

In conclusion, the training improves the handball skills which are a fundamental element for high profit for the sport activities. The study analysis the handball skills among junior volleyball players and senior volleyball players. These results say that the

performance of junior elite players is high compared to senior players. The study states that the training for handball skills improves the performance among junior players. The study found that athletes from interceptive sport types and junior males performed better. However, previous researchers have noted some weaknesses in these studies such as small sample sizes and methodological heterogeneity. Moreover, the authors pointed out that there are more studies involving male than female athletes and more work related to interceptive than strategic sports (as volleyball) or static sports. On the basis of our preliminary results we hypothesize that in the volleyball players the experience-dependent learning and brain could level the differences of handball skills correlated to the volleyball players. Further studies with

large sample sizes could verify this assumption.

RECOMMENDATION:

- On the basis of our preliminary results we hypothesize that in the athletes the experience-dependent learning and brain plasticity could level the differences of cognitive skills correlated to the sport type and visualization.
- The weak points of the study are the absence of prospective design that could have allowed us to follow up possible variations of motor skills during the agonistic season.
- The observation of volleyball and tennis athletes needs to be expanded to athletes in other different sports, in particular during closed skill sport activity

such as swimming, running, invasive sports such as football and basketball.

- In following works it could be useful to analyze visualization influence on the other coordinative motor skills.

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