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Effect of Yoga on Performance Related Fitness and Skills of Novice Baseball

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Abstract – Baseball, bat-and-ball sport known as the national hobby of the United States. It gets its name from the four bases that frame a precious stone (the infield) around the pitcher's hill. Today, baseball is played all over the world literally by millions of people from all walks of life. The skills needed to play the game are few, very simple, one must be able only to catch, throw, hit, and run bases with a moderate degree of skill. This game has several variations, each with some unique rules that set it apart. There are official rules for baseball and separate games for men and women. This game requires both power and ability to play. The game of baseball is quite simple and cheap. The game is popular across the country and the normal baseball tournament takes place over time. The groups comprise of nine players utilizing a hard calfskin secured ball, a wooden stick (in expert play) or aluminum and cushioned gloves. Moreover, the hitter, the beneficiary and the plate ref will wear uncommon defensive gadgets. The groups substitute on the field and bat, last beat of the home group.

Keywords: Yoga, Performance, Fitness, Novice Baseball, Home Group

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INTRODUCTION

The game takes place in a series of voices, usually 7 (the youth championships can play 6). There are no time or clock limits as in other sports, although amateur championships often impose a time limit for practical reasons. An inning is a series of both teams playing offensive and defensive. Each entry is divided into an upper half and a lower half indicating which team is playing which role. The attacking bat tries to score points while the defense occupies the field and tries to record in various ways. After the defense has registered 3 outs, half of the innings are over and the teams change roles.

To play this game a player has to develop strength, stamina, agility, flexibility etc. In fact, in this game due to repeated pitching, the shoulder joint is prone to injuries; therefore, it is essential that player should develop proper shoulder strength. Furthermore, there are several components of fitness that are important for the success of the baseball players, though there are positional differences with different fitness levels.

A bat turn for each group comprises an inning, and nine innings are a diversion. In the playing-field around is a pitcher, a collector, four box players and three cultivators. The pitcher tosses himself, utilizing an assortment of conveyances (quick ball, twist, knuckleball, and so on.), from the raised hill of the pitcher to the home plate, at a separation of 60.5 feet (18.4 m). A rival hitter efforts to knockout the pitches and achieve the base securely, although the defenders endeavor to get the player done a few recreations. A batsman who loses three shots, or can't swing at three decisions, is out of "blows"; yet on the off chance that the principal pitcher tosses four shots out of the assault zone, the hitter gets a base with the balls or "strolls" to the a respectable starting point. A run is scored each time a batsman turns into a sprinter and crosses the pot in the wake of contacting each base in the endorsed request. At the point when the field group draws three hitters (or sprinters), the groups trade places. In the event that the score is equivalent as far as possible of nine innings, the amusement proceeds in extra innings until one group has scored a greater number of shots than the others in a similar number of at-bat.

Perceiving the requirements of fitness components that are needed for the successful performance in baseball game, the present researcher thought to introduce yoga practices along with regular baseball practice, because, yoga practices improve hand-grip strength, muscular endurance, flexibility, and maximal oxygen uptake (VO_{2max}). In addition, decreases in percent body fat (and increases in forced vital capacity (FVC) and forced expiratory volume in 1 second ($FEV_{1.0}$) have also been observed. Further, Tran *et al.,* (2001) reported improvement in knee flexion, endurance, ankle flexibility, shoulder elevation, trunk extension, and trunk flexion. Even

though there are several research reports indicating positive impact of yoga practices among varied population but there are very few studies conducted among sports person, but no report available so far among baseball players. Therefore, the researcher sought to determine whether the yoga practices can improve the performance related fitness and skill of the baseball players.

REVIEW OF RELATED LITERATURE

Peng, Lo and Wang (2015) have studied the differences in joint movements and muscle activities of the lower limbs involved in various squatting positions. The motion capture system with thirty-one reflective indicators connected to the participants was used for the collection of movement data. The electromyography system has been applied to the muscles of the quadriceps, the biceps femoris, the tibialis anterior and the gastrocnemius of the pin and the leg of the falconer. The extension of the joint and the flexion of the wide squat are greater than the squat in general ($p = 0.005$). The extension and flexion of the squat knee joint in general are significantly greater than the wide squat ($p = 0.001$). Adduction and abduction of the hip joint in the stride phase are significantly greater than the steps ($p = 0.000$). Furthermore, adduction and abduction of the knee joint in the stride are also significantly greater than the stocky stepper ($p = 0.000$).

Lin et al. (2015) were expected to examine the impact of shoulder positions and speeds on the inner and outside revolution torque of baseball players and non-players of a similar age. [Themes] Twenty senior college players and 19 undergrads have been selected. [Methods] A dynamometer framework was utilized to assess the turn power of the shoulder in a sitting position. Three test positions were joined, to be specific 45°, 70° and 90° of shoulder snatching in the scapular plane, with three test speediness at 60°/s, 120°/s and 210°/s. [Outcomes] Maximum outer and interior revolution torque happened in 70 ° shoulder kidnapping. In any case, just the outer pivot rotation was exaggerated by the speediness, through the pinnacle esteem saw at 60 °/s. The interior turn rotating-force of baseball performers was more noteworthy than that of the controller bunch underneath all test situations; however the outside pivot demonstrated no distinction. The proportion among outside and inside pivot torque has changed with test positions and speeds in the two gatherings. The extent in the control gather was more noteworthy than the gathering of players. [Conclusion] The shoulder situation can impact the revolution power, and baseball performers possibly will fortify their outer rotators for better execution and damage avoidance.

Makhni et al. (2015) was to document the frequency of preseason injuries in the shoulder in these athletes, as well as the risk of re-injury and the impact on performance after the return of the injury. A comprehensive search of data on MLB injuries from 2001 to 2010 from public databases resulted in a cohort of MLB launchers who suffered shoulder injuries before the season. These databases were used to obtain information on the return to the MLB competition, the new injury and the performance after the injury return. All performance parameters were compared with those of a control cohort of the same age. A total of 74 launchers were identified who sustained a shoulder injury before the season. Only 39 (53%) returned that same season for launch in the MLB competition. Of those who have returned, almost 50% of the players have been redesigned on the disabled list during the return season. There was a decrease in the average performance of clean races and the average of the beats against the year of return. Compared to age-appropriate control pitchers, those with pre-season injuries have had lower performance metrics in different outcomes. The preseason injuries in the shoulder of MLB pitchers have the potential to cause high injury rates and decrease subsequent performance.

Lee et al. (2015) studied the effects of glen humeral interior revolution discrepancy on the isokinetic power, body pain and superiority of lifetime of South Korean baseball players. Fifty-six male high school baseball performers were distributed in group A (GIRD≥20 °, n = 12) or group B (GIRD <20 °, n = 44). The range of motion in the shoulder and the isokinetic strength were measured. The questionnaires were administered with respect to the position of body pain using the visual analogue scale and the quality of life was measured using the SF-36 form. All subjects had increased the rotation radius of the external rotation and decreased the internal rotation in the generated shoulder. The incidence of GIRD (≥20 °) was 21.43% in the present study. In the isokinetic strength test, a significantly weaker muscle state was observed at an angular rate of 180 ° / s in group A, compared to group B. For pain comparison, the frequency of shoulder pain was greater (33, 93%) compared to other body pains, among the subjects of the study. GIRD is one of the main risk factors for the damage of the glenohumeral joint and is related to reduced isokinetic strength and quality of life. High school baseball players will need appropriate shoulder rehabilitation programs to improve their quality of life and performance.

Tajika et al. (2015) was to gauge and assess clinical standardizing information on taking, squeezing, squeezing and squeezing power and evaluating the connection between these information and anthropometric factors and pit-pitch types among Japanese secondary school baseball pitchers. . One hundred and thirty-three secondary school baseball pitchers were screened and finished a self-controlled poll that included components identified with age, hand mastery, and shooting step proportion. An advanced dynamometer was utilized to quantify the grasping power and a check to gauge the tip, the key and the palmer squeeze on both the overwhelming and non-prevailing sides. The body organization was

estimated by the various recurrence segmental body arrangement analyzers. The holding power and the grasping power of the tip and palmer on the overwhelming side were measurably higher than the non-prevailing side (P <0.05). There were huge relationship between hold quality and stature (r = 0.33, P <0.001), weight (r = 0.50, P <0.001), BMI (r = 0.37, P <0.001), bulk of the upper appendage (r = 0.56, P <0.001), fat mass (r = 0.57, P <0.001), fat mass (r = 0.22, P <0.05) on the prevailing side Gamma et al. (2014) investigated the impact of the arrival of the storage compartment movement discharge (TMR®) Twisting (TT) and the lifting arm (AR) in IR and outside turn (ER) of the predominant shoulder baseball players contrasted with conventional unique warming. ; Launchers (male, n = 10 age 18.6 ± 1.3) Recruited nearby baseball crews were randomized to two of the two gatherings:; or a conventional warming gathering (GLT TMR® treatment gathering (n = 5 TMRG); n = 5). The essential proportions of the scope of movement (ROM) of the IR and ER goniometry were recorded. The TMRG at that point finished the TMR® activities and post-intercession estimations. The TWG finished a customary static and dynamic warming (e.g., thrusts, control increment, run, extending bed) and after that finished post-mediation estimations. After fruition of these estimations, the TWG finished the TMR® Twist convention. Trunk and arm lift and distribute mediation measures were recorded once more. ROM estimations for IR and ER of the predominant shoulder.

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Endo and Sakamoto (2014) inspected the connection between lower appendage firmness and lower appendage balance, as estimated by the Star Excursion Balance Test (SEBT), in secondary school baseball players. [Subjects] Thirty-three male understudies who have a place with baseball clubs in 2 secondary schools took an interest in this investigation. [Methods] For the SEBT, we inspected the front (ANT), back (POS), horizontal (LAT) and average (MED) headings. With respect to estimation of muscle firmness, the edge of every enunciation of reciprocal iliopsoas, quadriceps, hamstring, gastrocnemius, inside his rotator and outside hip rotator was estimated. [Results] The ANT bearing of the SEBT was altogether connected with the gastrocnemi firmness. The MED heading of the SEBT was altogether corresponded with the inner inflexibility of the hip rotators and the solidness of the hamstrings and was essentially contrarily associated with gastrocnemic unbending nature. The LAT heading of the SEBT was essentially associated with the solidness of the psoasiligo and the mistreatment of the gastrocnemius. [Conclusion] Then the frequency of higher appendage wounds is high in these subjects and this could be because of the firmness and precariousness of the lower appendages from a motor perspective, the SEBT could be utilized as a standard appraisal test amid Upper appendage damage examination in youthful baseball players.

BRIEF HISTORY OF BASEBALL:

The correct birthplace of present day baseball will presumably never be known. Baseball has had numerous predecessors, for example, "stool ball" and "objective ball", yet its closest parent might be the round of "rounder's" in English. Abner Doubleday was viewed as the innovator of the amusement in 1839, in any case, "baseball" is refered to in an English-dialect kids' magazine going back to around 1760. After three decades, a 1791 rule in Pittsfield, Massachusetts, looked to secure the windows of another gathering. Making the "baseball" match-up illicit inside 80 meters of the building. Whatever its starting point, an amusement like that of present day baseball played in the eastern United States in the mid nineteenth century. In 1845, Alexander Cartwright formalized the standards of baseball. One of the primary formal principles archived utilization of recreations played in 1846, when Knickerbockers of Cartwright lost to the New York Baseball Club in the Elysian Fields in Hoboken, New Jersey. In 1858 the National Baseball Players Association was shaped, the main composed baseball alliance. In 1868, in excess of 100 clubs were spoken to in the National Association. In 1869, Cincinnati Red Stockings turned into a totally proficient group, winning 65 diversions and losing nothing. Beginner groups It vanished rapidly and, in 1871, the National Association turned into the primary expert baseball class. It was supplanted in 1875 by the National League, which was controlled by businesspeople, not by players. The new title built up tenets at ticket costs, calendars and contracts of players. The business went well and in 1882 the adversary American Association It has

been shaped. It would turn into the American League in 1901.

In spite of the fact that the reason for current baseball has just been set up in 1900, the style of play still contrasted altogether from what we see today. The ball utilized in the mid-1900s, presently known as "dead ball", permitted a few homers. The groups depended on hitting and base taking for offense. The balls with the plug focuses were embraced in 1911 and this, joined with different elements, changed the amusement for eternity. Grand slam hitters like Babe Ruth during the 1920s brought baseball higher than ever of prominence. In the late 1940s he got another real change baseball. Amid the vast majority of its history, the match came racial isolation or by statutes or custom groups, the titles and the World Series in high contrast. Dark players like Bud Fowler and Moses Walker had played in white groups in the late 1800s, yet they were the special case. In 1947, Jackie Robinson, a dark player from Cairo, Georgia, joined the Brooklyn Dodgers, opening the way to another gathering of gifts for the two noteworthy titles. Be that as it may, the marking of dark players has been moderate for some groups and expert baseball has not been considered completely incorporated for quite a long while.

The measure of material was extended during the 1960s Team proprietors flourished as support developed in amusements and TV and radio contracts brought tremendous wholes of cash. Players have seen little of these riches. From the late 60s to the 70s, players and group proprietors have attempted to overcome or keep up control of baseball. The two gatherings couldn't draw in and the players left the center of the 1981 season. The proprietors surrendered and rebuilt the pay plan, which prompted an enormous extension of the players' pay rates. In 1994, the proprietors of the group demanded making a pay top. The players turned out again and the World Series was dropped without precedent for a long time, leaving many frustrated fans with the game. Another understanding among players and proprietors was at last come to in 1996. The relationship between the United States and baseball proceeds with today. The scan for grand slam records in the late 90s made a restored energy for the amusement. However, the charges of steroid use by the best players keep on propelling shadow on the national side interest. In the spring of 2006, be that as it may, the association of the Cheyenne Junior League Baseball sent 49 groups. Baseball it has been played in three distinct hundreds of years in Wyoming. Most likely it will be played in a fourth.

THE BASIC GAME

Baseball is played by two groups of nine players each. The groups exchange with striking and handling. The batting group is called an assaulting group and the group in the field is known as a shielding group. The nuts and bolts of baseball are exceptionally straightforward. A player, adequately known as the pitcher, tosses the ball to the recipient, who squats behind Base called home plate, a hitter is put close to the plate at home and after that swings endeavor to hit the ball. On the off chance that you reach, go around such a large number of bases conceivable previously the ball is recovered and repaid below the controller of the cautious group the objective of the amusement is to groove a greater number of races than the resistance. A match is recorded while a participant from the batting group propels everywhere the three sources and vertebral to wherever he began (home-based platter) since it began. Except if you hit the ball to the point where it can go around every one of the bases previously it is restored (a grand slam), you will presumably need to stop first, second or third in your way and trust that the following batsman will arrive. On the other hand, the sprinter may hazard "taking" a base and, in this manner, may progress further. The objective of the guarded group is to get the base batsmen and sprinters, either when the balls hit noticeable all around, as in cricket, or in numerous different ways. When three players in all-out attack mode group have made outs, the two groups change: the shielding group enters the bat and the batting group goes out to guard. An inning is finished when each group hits, and a total diversion comprises of nine innings. To play ordinarily takes 45 to a hour and a half. Players have beaten in a pre-set up request. After the last hitter in the request hits, the principal player shows up once more. In the event that the last exit in an inning is completed by, for instance, the fourth batsman in the request, the fifth batsman will be the principal to knockout while the group beats once more.

MATERIALS AND METHOD

The present examination was embraced so as to assess the adequacy of yoga on execution related and abilities of amateur baseball players. The methodology pursued to lead this logical trial has been introduced in this section.

The Subjects: Sixty male novice baseball players (n=60), were particular casually as sample by retaining Fishers Haphazard Table sampling technique. The subjects' age group was ranging from 18 –21 years. The researcher made sure that the entire subjects were medically fit for going through the experimental requirements of this research project.

Making the use of table random numbers all the 60 subjects were allocated aimlessly into two groups (Table 3.1) viz., Group –A (Yoga + Baseball practice) and Group – B (Control i.e., only Baseball practice). The plan of the experimentation has been scheduled in three phases.

- Phase – I: Pretest

- Phase – II: Training or Treatment, and
- Phase – III: Post test

Pre – Test (phase – I)

As per the effectiveness of yoga on performance correlated health and skills required for baseball players, all the subjects of the investigational and control groups were exposed to performance correlated fitness experiments and skills to record the pretest data.

Treatment stimuli (phase – II)

After the pre-test was finished, every one of the subjects of Group A were presented to a routine with regards to baseball pursued by yoga preparing and Group B took part in the act of baseball. This show the subjects of both the gatherings were taken an interest in baseball training, which is normal. This normal baseball preparing was bestowed for both the gatherings 30 minutes day by day at night aside from Sundays and occasions. Be that as it may, after fulfillment of 30 minutes preparing in baseball, Group An experienced preparing in yoga rehearses for 30 minutes, while Group B was occupied with some recreational exercises for 30 minutes.

Posttest (phase III)

Finally, training period of 8 week was over, the posttest on performance related fitness and skills in baseball were assessed for all the subject of two groups.

Table 1- Blue print of subjects' distribution

Group	No. of Subject
Gr. A– Yoga & Baseball training	30
Gr. B –Control (Baseball practice)	30
Total	**60**

Inclusion and exclusion criteria

- The players who never played baseball and do not have any knowledge about the game "baseball," but having interest to participate in this experiment will be included in this study.
- The efficient players, who have expertise in playing baseball and participated in various competitions on baseball, will be excluded.

VARIABLES SELECTED FOR THE STUDY

1. Dependent Variables and Tools Used

Before and after experiment, following tests on the subjects were administered and recorded pre- and post- test data respectively (Table 2).

Table 2 Measurement of selected Variables

Sr. No.	Name of the Test	Tools Used	Criterion Measures
	MORPHOLOGICAL VARIABLES		
1.	Height	Stadiometer	Nearest to .05 cms.
2.	Weight	Weighing machine	Nearest to ½ kg.
3.	Body Mass Index	Weight/height in meter square	Nearest to ±1 Index
	FITNESS VARIABLES		
1.	Cardiovascular efficiency	1 mile run/walk	Nearest to 0.50 M
2.	Flexibility	Sit & reach	Nearest to 0.05 cm.
3.	Abdominal muscles strength	Bent knee sit ups	Nearest to 1 No./min.
4.	Explosive power	Jump & reach	Nearest to 0.05 cm.
5.	Speed	Sprint	Nearest to 0.1 sec.
6.	Agility	Shuttle run	Nearest to 0.1 sec.
	BASEBALL SKILLS		
1.	Pitching	Underhand Pitching Test	Nearest to ±1 point
2.	Fielding	Fielding ground balls	Nearest to ±1 point
3.	Hitting	Toss the ball and hit	Nearest to ±1 point
4.	Base running	Hitting an imaginary ball & run around the base	Nearest to 0.1 sec.
5.	Throwing	Overhead throw for distance	Nearest to ±1 point

The participants were found really encouraged to exhibit their best effort in each of the above tests.

2. Independent Variable

One independent variable i.e., yoga practice, had been included in this study and the schedule has been presented in Table 3:

Table 3 Schedule of yoga practice

Sr. No	Name of the yoga practice	Sr. No	Name of the yoga practice
1	Shavasana	9	Bakasana
2	Naukasana	10	Trikonasana
3	Sarvangasana	11	Vrikshasana
4.	Chakrasana	12	Utkatasana
5	Bhujangasana	13	Ujjai Pranayama
6.	Dhanurasana	14	Suryabhedan Pranayama
7	Paschimattanasana	15	AnulomVilom
8	Vajrasana	16	Trataka

Designing Yoga Training Schedule

Yoga training programme was designed on the basis of following:

- The practice of Yoga postures helps to keep already fit person healthy. In sporting events viz., martial arts, gymnasts, wrestling, fencing and others, the success is achieved through the perfection. Since skill execution in one phase is dependent upon other phases. And previous research reports indicate that breathing exercise (pranayama) and meditation is helpful for better concentration and improved performance.
- To accomplish victory in games and sports, for example, viz, hockey, kho-kho, tennis,

cricket, softball and baseball require distinctive blends of physical wellness and abilities. Practice of asanas enhances physical and motor fitness. Asanas include practicing of different muscle groups at distinctive joints and various combinations and likewise give back massage to imperative organs of the body, which impacts their working in positive way. The moderate stretching and holding techniques in yogic postures increase the flexibility, an important quality to keep performance and avoid injuries.

DATA ANALYSIS AND INTERPRETATION

The present examination was directed to see the effect of a yoga intercession program towards enhancement of execution related wellness and abilities of Baseball players.

1. Descriptive Data Analysis – Morphological Variables

If there should arise an occurrence of Height the aftereffect of focal inclination and scattering uncovered that the mean pretest scores of Baseball training in addition to Yoga and Baseball training bunches were 153.1 (SD=±6.56) and 157.3 (SD=±6.02) individually. Every one of the scores have been communicated in cms. (Table 1). The outcome demonstrates that the pretest scores of all the chose gatherings are for the most part comparative. The mean posttest scores in Height of Baseball training in addition to Yoga and Baseball training bunches were 152.13 (SD=±6.38) and 155.52 (SD=±6.3) separately. The outcome shows that the posttest scores are additionally comparative, which translates that preparation intercession does not have critical impact on Height.

Table 1 Central Tendency and Dispersion of the Groups in Morphological Variables in Baseball players (M & SD)

Variables	Groups			
	Baseball plus Yoga practice Group		Baseball practice Group	
	Pre-test	Post-test	Pre-test	Post-test
Height (Cm.)	153.1 (±6.56)	152.13 (±6.38)	157.3 (±6.02)	155.52 (±6.3)
Weight (Kg.)	48.45 (±4.57)	42.53 (±5.93)	49.25 (±4.57)	48.53 (±5.93)
Body mass index (Index)	21.37 (±2.52)	16.40 (±2.06)	22.21 (±2.14)	19.38 (±2.10)

2. Descriptive Data Analysis – Physical Fitness Variables

Wellbeing related physical wellness contains six noteworthy segments viz., adaptability, cardiovascular continuance, dexterity, solid quality, speed and muscle to fat ratio. The aftereffect of enlightening information examination on these parts has been displayed beneath. If there should arise an occurrence of Cardiovascular efficiency the aftereffect of focal inclination and scattering uncovered that the mean pretest scores of Baseball training in addition to Yoga and Baseball training bunches were 7.24 (SD= ± 0.076) and 7.15 (SD= ± 0.074) individually. Every one of the scores have been communicated in min:sec (Table 2). The outcome shows that the pretest scores of all the chose gatherings are for the most part comparable. The mean posttest scores in Cardiovascular effectiveness of Baseball training in addition to Yoga and Baseball training bunches were 6.59 (SD= ± 0.070) and 7.13 (SD= ± 0.073) individually. The outcome shows that the posttest scores are extraordinary, which translates that preparation intercession acquired enhancement cardiovascular productivity.

Table 2 Results on Descriptive Data Analysis of Selected Fitness Variables of Baseball Players (M ± SD)

Parameters	Baseball Practice plus Yoga Group		Baseball practice Group	
	Pre-test	Post-test	Pre-test	Post-test
Cardiovascular Endurance (Min:Sec)	7.24 (±0.076)	6.59 (±0.070)	7.15 (±0.074)	7.13 (±0.073)
Flexibility (Cms)	35.88 (±3.0)	39.2 (±3.11)	33.84 (±3.12)	34.08 (±2.87)
Abdominal Muscle Strength (Number/Min)	36.44 (±4.27)	41.96 (±4.03)	36.60 (±3.49)	37.24 (±3.53)
Explosive Power (cm)	44.57 (3.41)	50.40 (5.01)	44.77 (3.78)	43.59 (3.05)
Speed (Sec)	8.01 (±0.068)	7.30 (±0.064)	8.03 (±0.069)	8.09 (±0.069)
Agility (Sec)	10.26 (±0.064)	9.26 (±0.071)	10.49 (±0.072)	10.48 (±0.072)

3. Descriptive Data Analysis – Baseball Skills

In this study, the major baseball skill variables were pitching, fielding, Hitting, Base turning and throwing. The result of descriptive data analysis has been presented below. In the event of Pitching the aftereffect of focal propensity and scattering uncovered that the mean pretest scores of Baseball training in addition to Yoga and Baseball training bunches were 23.47 (SD= ± 2.03) and 22.56 (SD= ± 2.26) separately. Every one of the scores have been communicated in Points (Table 3). The outcome shows that the pretest scores of all the chose gatherings are generally comparable. The mean posttest scores in Pitching of Baseball training in addition to Yoga and Baseball training bunches were 28.92 (SD= ± 3.27) and 24.6 (SD= ± 2.77) separately. The outcome demonstrates that the posttest scores are extraordinary, which translates that preparation mediation acquired enhancement Pitching.

Table 3 Results on Descriptive Data Analysis of Selected Baseball Skill Variables of Baseball Players (M ± SD)

Parameters	Baseball practice plus Yoga Group		Baseball practice Group	
	Pre-test	Post-test	Pre-test	Post-test
Pitching (Points)	23.47 (±2.03)	28.92 (±3.27)	22.56 (±2.26)	24.6 (±2.77)
Fielding (Points)	10.6 (±2.60)	15.32 (±2.78)	10.32 (±2.48)	11.36 (±2.58)
Hitting (Points)	22.56 (±4.19)	28.12 (±2.93)	22.92 (±5.24)	23.68 (±3.4)
Base running (Points)	12.16 (±4.08)	17.4 (±3.16)	12.36 (±4.86)	14.6 (±3.03)
Throwing (Points)	48.56 (±4.19)	57.12 (±3.93)	49.92 (±5.24)	52.68 (±3.4)

CONCLUSION

Baseball is a game of skill, timing and power; it characteristically involves extended periods of play, often in challenging environmental conditions. There are several fitness components and skills required for the success in baseball game. Further, the rise in professionalism in sport over the last two decades has had a ripple down effect to virtually every level of sport. No longer does it seem enough to have natural talent and to play sport simply for enjoyment. What is now required on top of talent is the development of this talent by various means available in the contemporary sporting world, and by fine-tuning these natural abilities so that the full potential of the sportsperson can be achieved. At the higher levels of professional sport this can involve a support team of coaches, managers, trainers, health, fitness and diet consultants and sport psychologists, but the person most responsible for coordinating, or at some levels, assuming, many of these responsibilities, is the coach. The nature of coaching has changed radically in this period, and continues to change at a rapid pace. The use of technology, science, medicine and psychology in training programs has become standard procedure and reveals a willingness by coaches to draw on a broad spectrum of tools to give their team or athlete the winning edge. Increasingly yoga is becoming one of these tools.

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