A review of relevant and related literature is an essential first step in order to have a comprehensive understanding of what has been done and proposed with reference to the subject under study. A review like this leads to a better understanding and perspective of the field as a whole. The researcher has given a quick synopsis of the research articles that have been published in relation to the current investigation.

Chahal et. al. (2023) study set intended to determine the "relationship between the performance of a volleyball player and their speed, agility, muscular strength, explosive strength, and muscular endurance." Twenty Chhatrapati Sambhaji Nagar intercollegiate volleyball players who were taking part in an intercollegiate volleyball competition were chosen as study subjects. Their ages fell between twenty and twenty- five. statistics for examination, The relationship between volleyball performance and a few other factors, such as speed, agility, muscular strength, explosive strength, and muscular endurance, was calculated using zero order correlation. The findings demonstrated the maximum correlation between an individual's physical fitness components—speed, agility, explosive strength, muscular strength, and muscular endurance—and volleyball performance. At the 0.05 level of confidence, the coefficients of association between volleyball players' performance and speed (r=-0.668), agility (r =- 0.81), explosive strength (r = 0.52), muscular strength (r = 0.65), and muscular endurance (r = 0.72) were found to be significant. The results suggest that crucial factors for improved volleyball play were muscular endurance, strength, speed, and agility.

Ayat (2022), study was to determine the association between the motor reaction speed and the performance level of volleyball defensive and receiving skills in order to establish a training program. Data was gathered from 28 volleyball players at the Sport School in Hadayek al-Qubba, Cairo, in 2021–2022, using the experimental method employed by the researcher. The research's findings showed that the suggested training program helps volleyball players improve their motor response speed. It also showed a strong relationship between the players' ability to receive and defend the ball and their motor response speed.

Kaur (2022) the objectives of the current study are to determine the intracorrelation between certain volleyball playing abilities and the link between the motor skills and

playing abilities of female volleyball players in secondary schools. A sample of one hundred eighty (180) female secondary school volleyball players from the state of Punjab, ages 14 to 19, were examined. Players who took part in district and interdistrict tournaments are included in the sample. To assess their performance in the game, five playing ability tests were chosen, including the wall volley test (AAHPER1969), target pass, upper hand pass, underhand pass, and service (Singh 1990). The majority of motor skills are found to be associated to each volleyball playing skill, and all volleyball playing skills are shown to be related to each other, but three skills exhibited lesser relationships. Based on the link found between volleyball players' performances, it can be inferred that volleyball players can enhance their performance by developing their strength, explosive power, speed, and agility.

S. Trecroci (2021), study was to look at the connection between young volleyball players' physical performance and fundamental cognitive processes. A total of forty-three female volleyball players, ages 11.2 ± 0.8 years, underwent cognitive performance tests that included the visual search task, the flanker task, which measures executive control, perceptual quickness, and simple response time (clinical reaction time). Additionally, a battery of tests was utilized to evaluate motor skills (change of direction, vertical jump, and balance) and volleyball-specific skills (precision of setup, passing, and serving). A significant positive connection ($r = 0.45$, d-value = 1.01) was observed between the cumulative score that summarizes cognitive functions and the cumulative score that summarizes physical performance unique to a given sport, according to Pearson's r correlation analysis. Moreover, there were discovered to be small-to-medium associations (d-values ranging from 0.63 to 0.73) between motor and cognitive abilities. These results imply that volleyball players with higher basic cognitive functions also have better physical performance tailored to the sport, based on the cumulative scores. Our results support further research into the relationships between cognitive and motor abilities in the context of athletic performance.

Uslu et. al. (2021) study's objective was to investigate how teenage volleyball players' motor skills and volleyball-specific technical skills relate to one another. Eighty volleyball players (40 male and 40 female, ages = 16, 70, 1, 09) freely took part in this study. Tests of motor function (dynamic equilibrium, grip strength, and back

strength, leg strength, vertical jump, flexibility, agility, medicine ball throw, nelson hand reaction, and nelson movement speed in addition to volleyball skill assessments (service, bump, and finger passing hit rate). Using the SPSS 23 package application, the Spearman correlation test was utilized to ascertain the association between the study's data. The volleyball skill tests of both male and female volleyball players show a positive correlation with the averages of shoulder ankle flexibility, dynamic balance of the right and left feet, claw strength (right-left), vertical jump, medicine ball throw, back and leg strength ($p<0.05$). Agility, hand reaction, and arm movement speed rates showed a highly significant negative correlation ($p<0.05$). Nevertheless, no statistically significant correlation was seen between the rates of bump passing hits and the vertical jump, claw strength, right- left, and hand reaction speeds ($p>0.05$). The study's findings show that, among both male and female volleyball players, there is a highly substantial correlation between a few key motor skills and volleyball-specific technical skills.

Budhe (2020), this study is to compare the motor fitness components of various athletes. In the highly competitive sports environment of today, motor fitness components are essential to success. The researcher chose thirty-eight (N = 38) male individuals, ages 18 to 28, with the following characteristics: mean ± SD: age 20.31 ± 1.82 years, body height 160.62 ± 7.61 m, body mass 55.07 ± 8.13 kg. All analyses were conducted using SPSS version 14.0, the Statistical Package for the Social Sciences. One-way Analysis of Variance (ANOVA) was used to examine the significance of differences in the means of each group for each selected variable. In all analyses, the 5% critical threshold ($P<0.05$) was deemed to indicate statistical significance. To put it briefly, the results showed that there were negligible differences between inter-varsity handball, volley ball, and basketball players on the sub-variables of motor fitness components, such as flexibility, balance, agility, and speed.

Kumar and Sharma (2020) the research is to determine how male intercollegiate volleyball players' playing skill is correlated with their motor fitness and psychological factors. Thirty outside hitters who competed at the intercollegiate level in volleyball for various colleges at Punjab University and represented their schools in intercollegiate competitions were specifically chosen as study participants; their ages

ranged from 18 to 23. Three psychological variables—cognitive anxiety, somatic anxiety, and self-confidence—as well as four motor fitness variables—speed, agility, strength, endurance, and flexibility—were taken into account as independent variables. The relationships between the chosen dependent and independent variables were ascertained using the data that was gathered. The relationship between the chosen variables was ascertained using the Karl Pearson's Product Moment Coefficient of Correlation. A fixed significance level of 0.05 was applied. The findings indicated that agility, cognitive anxiety, and self-confidence were positively correlated with male volleyball players' playing ability, whereas no significant link was found between the remaining variables and playing ability. The two most important factors for improving volleyball players' playing abilities are psychological and motor fitness.

Govindaiah et. al. (2019), the aim of the study is to determine how university men's volleyball players' playing ability and various motor fitness metrics relate to one another. Thirty-five university-level volleyball players, ranging in age from 18 to 25, who had represented their respective universities in the South Zone Volleyball Tournament 2018 were chosen at random to serve as study participants. In terms of the motor fitness variables, the independent variables included muscular strength, explosive power, speed, agility, flexibility, and endurance. The Coaches Rated Scale, which uses a 10-point rating system, was used to evaluate playing skill, which was seen as a dependent variable. The relationships between the chosen dependent and independent variables were ascertained using the data that was gathered. The relationship between the chosen variables was ascertained using the Karl Pearson's Product Moment Coefficient of Correlation. The significance threshold was set at 0.01 and 0.05. The findings showed a positive association between men's volleyball players' playing ability and the following characteristics: flexibility, muscular strength, explosive power, agility, and cardiovascular endurance. For volleyball players to advance in their playing abilities, motor fitness is paramount.

S. Kumar et. al. (2019), the current study was to evaluate the connection between cricket players' sports performance and motor fitness. The subjects of the current study were sixty-four (N=64) cricket players who placed in Punjab University's Chandigarh intercollege championship. Tests for shoulder strength, abdominal

strength endurance, agility, explosive leg power, speed, and cardiovascular endurance were used to assess the motor fitness variables. These tests included pull-ups, sit-ups, shuttle runs (4 x 10 m), standing wide jump, 50-yard dash, and 600-yard run/walk. Cricket players' sports performance was examined in connection to motor fitness characteristics using Pearson's Product-Movement Correlation Test. The current study's findings showed that motor fitness factors are positively correlated with improved sports performance in cricket players.

Sudhakara (2018) the purpose of the study was to determine how specific motor fitness affected men's collegiate volleyball players' skill performance.Techniques: For the goal of this study, forty (40) male intercollegiate volleyball players were chosen to serve as subjects. At the Davangere University intercollegiate tournament, information about motor performance was gathered from the following tests: the modified sit and reach test was used to assess flexibility; the medicine ball throw test was used to assess shoulder strength; the vertical jump test was used to assess leg explosive power; the volleying test was used to assess skill performance; and the 50-meter dash test was used to assess speed. The statistical approach of coefficient of correlation was employed to test the acquired data in order to verify the study's hypothesis. According to the statistical analysis, there is a correlation between a certain motor fitness level and skill performance among collegiate volleyball players. Physical attributes such flexibility, speed, endurance, strength, and leg power are favorably connected with the ability to play volleyball, taking into account the study's limitations and findings. The study's findings indicate that certain physical attributes have an impact on volleyball players' performance.

Mroczek, et. al. (2017) this research is to identify synergistic motor outcomes, which are sets of mutually dependent players' motor skills that influence how well young volleyball players perform. The study was conducted among 150 boys between the ages of 14 and 15 during a national volleyball competition. Two cameras, positioned 1.6 meters above the floor and 10 meters behind the end line, were used to record the matches. The efficaciousness of the assault, block, and serve characteristics were evaluated. The players' serves, blocks, and attacks—the acts that had the biggest impact on the predetermined result—were the initial dependent variables. With the exception of ineffective serves, players' serve results showed the biggest variations,

with the index of variability ranging from v = 67.14 (counter-effective serve) to v = 80.23 (effective serve). The results of the study demonstrated that while blocking efficacy is influenced by the height of the running vertical jump, serving and attacking effectiveness is directly correlated with standing jumping ability.

Vileep and Virupaksha (2017) study was to know the role of selected Motor Fitness in Skill performance among Intercollegiate Volleyball Players. Methodology: In order to achieve the purpose of the study forty (40) inter-collegiate volleyball male players were selected as the subjects. During inter collegiate tournament of Kuvempu University from the data pertaining to the motor performances such as flexibility was assessed with the help of modified sit and reach test, speed was assessed with the help of 30 meter fly start, endurance was assessed with the help of 30 second Burpee test, strength was assessed with the help of medicine ball throw test, leg power was assessed with the help of standing broad jump, skill performance was assessed with volleying test, Service test, passing test, set- up test. The data collected was tested with coefficient of correlation statistical technique to test the hypothesis of the study. Results: The statistical analysis shows coefficient of correlation in role of selected Motor Fitness in Skill performance among Intercollegiate Volleyball Players. Conclusion: In view of the finding and limitation of the study, the physical qualities such as flexibility, speed, endurance, strength, and leg power are positively correlated with volleyball playing ability. The result of the study shows that the selected physical qualities contribute in performance of volleyball players.

Yadav (2017) Finding the correlation between motor fitness factors and badminton players' performance was the aim of this study. Twenty (20) male badminton players from Pt. Ravi Shankar Shukla University in Raipur and Guru Ghasidas Vishwavidyalaya in Bilaspur were chosen as study subjects. The subjects' ages were limited to 20 to 28 years old. For the objective of this study, a variety of motor fitness measures, including flexibility, leg strength, and speed, was chosen. At the 0.05 level of significance, the correlation between badminton performance and the chosen variables was calculated using zero order correlation. According to the study's findings, flexibility was considered significant at the 0.05 level of significance. Furthermore, based on the study's findings, the following conclusion was reached: respondents' flexibility was a key factor in their improved badminton performance.

Gangey and Kerketta (2016) study was to examine the relationship between selected motor fitness and volleyball playing ability for which 30 volleyball players were selected from Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.) and their age ranged from 18-28 years. The selected motor fitness: agility, coordination and reaction time test were measured by conducting side step test, eye-hand coordination (ball transfer) test and nelson finger reaction test. Brady's volleyball skill test was used to assess the volleyball playing abilities of the selected subjects. Mean and Standard deviation were used as descriptive statistics. Pearson Product Moment Coefficient of correlation with significant level at 0.05 was used to examine the correlations between volleyball playing ability with agility, balance, coordination and reaction time. The statistical analysed was carried out using MS Excel and SPSS 16.0 version. The findings of the present study showed that there was significant relationship found in agility, coordination and reaction time in correlation between volleyball playing ability of Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.).

Naidu (2016) study's goal was to determine how certain aspects of physical fitness for performance related to jumpers' abilities. Fifty male athletes representing the state of Andhra Pradesh at the junior national level provided data for this study. The individuals' ages ranged from eighteen to twenty years old. Locomotor speed, leg explosive strength, agility, flexibility, and orientation coordinate ability (orientation test) are the chosen performance physical fitness components. Pearson's Product Moment Correlation was used for the analysis, with a significance level of 0.05. The results demonstrated that there was a substantial correlation between long jump ability and explosive strength, locomotor speed, and agility. Conversely, there was no discernible correlation found between flexibility and orientation coordinate ability.

Sing and Sing (2016) study's objective is to evaluate the association between psychomotor capacities and particular sports skills in volleyball. To achieve the study's goals, a sample of One Hundred Twenty (N=120) male intercollegiate volleyball players from the northern part of India were purposefully chosen. After each participant was made aware of the agreed to participate in the study, understood its purpose and methodology, and offered their time. A data analysis tool is the Pearson Correlation Coefficient Calculator available online. The Pearson's product moment correlation coefficient approach was utilized to determine the association

between specific psychomotor skills, coordination abilities, and skill-related fitness components and volleyball skills. A significance threshold of $p \leq 0.05$ was deemed appropriate. In summary, the aforementioned research indicates that volleyball players' serve, setup, and receive performances are highly influenced by their psychomotor skills, specifically their kinesthetic perception and speed of movement.

N. Rama Chandra Rao and R.V.L.N. Ratnakara Rao (2015) study was to examine the influence of selected physical fitness components at different temperatures for spiking. Ten collegiate level male Volleyball players of VITAM College of engineering, Visakhapatnam, participated in this study as subjects and they have undergone in speed and explosive strength training for seven days. The subjects were selected in the age group of 18-21. The collected data was analyzed by using t-test. The findings of this study revealed that there is a significant difference in speed and explosive strength after training.

Yadav and Malik (2015) study was to determine the physical fitness of the volley ball players and their performance related to their volley ball game. The various factors which influence the power game, especially the physical fitness variables pertinent to speed, endurance and even overall performance of volley ball players between University Players and National Players at Delhi University. The national players have scientifically proved better than university players in majority of Physical fitness variables speed, endurance, from university volley ball players. In the present scenario the academic standards in volley ball game have been playing a significant role in the creeping performance of the game. Hence it is concluded that the physical fitness plays a vital role on the performance of the players. The physical activity can act as an antidote to some kinds of fatigue; youngsters will be harmed through sustained exercise- if they are fit, their physical endurance is great, and the exercise will be conductive to good health.

Devi (2014) the study was to determine how different playing strategies affected certain motor fitness components in collegiate female volleyball players. Thirty female volleyball players from Sports University College in Chennai were chosen as participants for the current study in order to fulfill its objectives throughout the academic year 2012– 2013. The selection of the subjects was done at random. The

individuals' ages ranged from 18 to 25 years old. The obtained data were subjected to statistical analysis employing test means on particular dependent variables independently and analysis of Pearson correlations to ascertain the difference. The significance level was tested in each case using a constant 0.05 level of confidence. The study's findings show that there were notable differences in the speed and agility of female volleyball players.

Sahin (2014) study was to determine the relationships between acceleration, agility, and jumping ability in female volleyball players. A total of 12 female collegiate volleyball players were examined. The mean (SD) age was 20, 10±1.197 years, height was 1.74±0.057 m, and weight was 61, 30±4, 244 kg for the 12 volleyball players. In this study, the T test for agility, acceleration test, and vertical jump test were used. A significant negative correlation existed between vertical jump with acceleration and agility ($P<0.01$). Vertical jump was highly correlated with acceleration and agility ($r = - 0.799, -0.777$, respectively). In conclusion, the present research showed vertical jump performance for collegiate female volleyball players that positively affected acceleration and agility. Also, relationship between jump performance and acceleration, agility in volleyball is very important to produce high force and rapid stretch shortening cycle movements and high-speed whole body movements. Vertical jump performance, working with volleyball teams, need to be able to administer efficient, but relationship between vertical jump and acceleration, agility needs to be determined in longitudinal training investigations. Vertical jump and agility, acceleration development program can be designed with minimal cost and equipment. The results of this investigation show that coaches can utilize agility and acceleration training for vertical jump development.

Cox (2013) this research was to investigate the relationship between team performance in volleyball and the skill components of serving, service reception, setting, spiking, spike defense, and free ball passing as measured by adapted charting procedures. A purposive sample of 107 games between the best “AA” teams in each of 9 Northwest volleyball tournaments was charted. The results of the study indicated that, considered together, the volleyball skills studied were significantly related to team performance. Further analysis of the nature of the relationship revealed that the order of volleyball skills most influential in predicting team success was spiking,

followed by spike defence, service reception, setting, serving, and free ball passing, respectively.

Taware et al. (2013) study was aimed to assess flexibility, muscular endurance, power and cardio-respiratory endurance of volleyball players and to compare the results with age matched controls. Also, to compare the findings of the volleyball players with that of the international norms from the available literature and to make some suggestions for the improvement in their performance level. Material and Methods: The study was carried out in 40 male volleyball players aged between 17 to 26 years and 40 ages matched male controls. Physical fitness parameters namely flexibility, muscular endurance, power and cardio-respiratory endurance were measured; data was analyzed using unpaired t-test. Results: It was ob-served that all physical fitness parameters were significantly more in players as compared to their aged-matched controls but when values of the subjects were compared to international standards; our subjects were behind the recommended norms for the elite volleyball players. Conclusion: The volleyball players have more advantage of flexibility muscular endurance, power and cardio-respiratory endurance..

Xavier Maria Raj (2013) study was to assesses to know the certain variables, which are innate in a player that would contribute for the development of volleyball performance. To achieve the purpose of the study ten D.D.U. Gorakhpur male university players (group I) and ten intercollegiate male players from St. Andrew‟s P.G. College (group II) was selected as subjects. Random group design was employed. The best timing of the two trials was selected to collect the data unselected skill test (Brady volleyball skill test and Russell Lange serving skill test) and motor Fitness components (explosive power, agility, flexibility and speed).To analyze the selected motor fitness components and skill performances of university represented and non-represented volleyball players, Pearson product moment correlation and ‘t’ test was employed; the proposed hypothesis was tested at .05 level of confidence. The results indicates that the correlation coefficient between explosive power with agility, explosive power with flexibility, explosive power with speed, flexibility with speed and inter correlation between Brady volleyball test with flexibility were significant. The result also reveals that the performance of university represented and non-

represented volleyball players on both the skill test were differs significantly at .05 level of confidence.

Sing (2012) study's objective was to measure the correlation between chosen biomechanical component to the Set Shot performance. The study was restricted to Lucknow University's male basketball players. Only the 11 patients who were right-handed shooters were included in the study. Basketball's set shot was biomechanically analyzed using Silicon Coach Pro 7. A high-speed Casio Exilim F-1 camera. The participants were forced to take just three shots. The body's angular kinematical variables were computed at the time of execution. To examine the data, person's product moment correlation was used. 0.05 was selected as the significance threshold at which to test the hypothesis. The individuals' performance was found to have no significant link with the Ankle, Knee, Elbow, and Hip joints, but the Shoulder and Wrist joints demonstrated a significant relationship.

Kalepwar (2011) studied of effect of general physical fitness on the sport performance of volley ball players. The objectives of the study were to measure the physical fitness level of volleyball players. To delineate the relationship between physical fitness and the sport performance of volley ball players. The study was conducted in Nanded district of Marathwada region. Ninety six (96) volley ball players who represents different volleyball tournament at college and inter college level have been selected. The components of general physical fitness finalized by the coaches in charge of Netaji Subash National Institute of Sports (NSNIS), Patiala having poor, satisfactory, good, very good and excellent grading and scoring have been selected. The performance of volleyball players have been judge and classified. The data have been collected with the help of well structured questionnaire by survey method. Growth and development are the manifestations of life and their rate and quality indirectly reflects the general health of an individual. Health of an individual is determined through the study of somatometric variables and body components. Many hereditary and environmental factors are responsible for influencing the health of an individual. The health, the physical endurance, the agility and tenacity are usually different.

Tiwari et. al. (2011) study was to determine how a badminton player's performance was correlated with their speed, agility, shoulder strength, explosive strength, and muscular endurance. Thirty state-level badminton players from Lucknow who were competing in state championships were chosen as study participants. Their ages fell between twenty and twenty-five. The following tests were used to estimate badminton performance, speed, agility, shoulder strength, explosive strength, muscular endurance, and- A panel of experts graded the badminton. To analyze the relationship between badminton performance and particular characteristics, such as speed, agility, shoulder strength, explosive strength, and muscular endurance, zero order correlation was used. The outcome demonstrated that an individual's badminton performance is most correlated with all of the motor fitness components (speed, agility, explosive strength, shoulder strength, and muscular endurance). At the 0.05 level of confidence, the coefficients of association between badminton players' performance and speed (r = - 0.667), agility (r = -0.83), explosive strength (r = 0.55), shoulder strength (r = 0.69), and muscular endurance (r = 0.75) were found to be significant. The results show that key elements for improved badminton performance were muscular endurance, speed, agility, explosive strength, and shoulder strength.

Marques and Marinho (2009) study was to investigate the anthropometric and strength characteristics of elite male volleyball athletes and determines if differences exist in these characteristics between starters (S) and non-starters players (NS). A group of 22 professional male team volleyball players participated in the study and the players were categorized as S (n= 13) and NS (n= 9). Anthropometric characteristics, countermovement jump, overhead medicine ball throwing and maximal dynamic strength were evaluated in all the subjects. Significant differences in age, height and weight were noticed between S and NS. There were no significant differences between the two groups in strength and power values, except for squat performance, where S were significant strong than NS. These findings provide normative data for elite male volleyball players competing in specific playing status. From a practical perspective, sport scientists and conditioning professionals should take specific lower body strength characteristics of volleyball players into account when designing individualized training status specific training programmes.

Bhadoria (2003) examined the relationship of agility, strength and flexibility to playing ability in volleyball. For this purpose twenty four-volleyball player of the Lakshmibai National Institute of Physical Education, Gwalior was selected as the subjects. By administering the tests for arm strength, abdominal strength, leg strength, agility, wrist flexibility, and ankle flexibility collected data was statistically treated by using Product moment correlation (Zero). The finding of the study revealed that strength measures of leg, arm, abdomen and agility contributed significantly to the playing ability of volleyball with leg strength dominating the arm and abdomen strength.

Sheela (1994) studied to determine the relationship of power, agility, flexibility, muscular endurance and cardio respiratory endurance to measure playing ability in volleyball. Thirty volleyball players of Lakshmibai National College of Physical Education, Gwalior acted as subjects. Power was measured by sergeant jump, and agility by side step test, flexibility by trunk flexion test, muscular endurance by pull ups and bent knee sit-ups and cardio respiratory endurance by one minute lateral jump test. The playing ability was the subjective judgment of a panel of three experts for each subject. Product moment correlation was used to statically analyze the data. On the basis of the significance motor fitness component underlying performance in the game of volleyball. Muscular endurance, cardio respiratory endurance and flexibility also contributed to the volleyball playing ability. Agility showed an in significant relation to playing ability in volleyball.