2.1 Review of related literature:

The research researcher endeavored to provide an overview of the pertinent literature, potentially aiding in comprehending the fundamental patterns and highlighting the significant findings of the proposed investigation. The studies that the investigator has used are the only ones included in the current review because it is based on the body of literature that is currently available for the topic. In order to give the background information required to assess the study's significance in this chapter, every relevant literature that the researcher has been in possession of has been supplied.

2.2 Resistance Circuit Training

S. Mohan et. al. (2023) study was to determine how high school level kho kho players' physical and physiological variables were affected by sophisticated training with game-specific training. Sixty student-athletes from Tirupur district schools in Tamil Nadu, who range in age from 15 to 17, were chosen as subjects in order to accomplish this goal. Four equal groups of fifteen participants each were formed from the chosen subjects: the resistance training group, the plyometric training group, the complex training group, and the control group. All groups had 8-week training durations. Speed, agility, lower extremity physiological variables, and upper extremity physiological variables, respectively, were used to test the chosen fitness characteristics. To determine if there were any significant differences between the groups, ANCOVA was performed. The study's findings demonstrated a substantial difference between the sophisticated training group and the control group in terms of strength endurance and agility. The "t" ratio, which assessed for significance, was used to achieve this. This study could be done on people of different ages and sexes. A thorough analysis of different sports and games can be done.

Belli et al. (2022), study is to look into how competitive amateur soccer players' physical performance is affected by circuit training combined with a basic workout regimen. For eight weeks during the off-season, there was training twice a week. The following tests were used for pre- and post-testing: 19 adults in all were split into the experimental group and the control group. While the CG reported no significant differences between the pre-test and post-test comparison, the EG shown substantial gains in lower and upper body strength, core strength, and balance. Despite the study's limitations, our encouraging findings indicate that circuit training combined with core

workouts appears to be a successful method for enhancing performance in adult soccer players.

Princy and Mahaboobjan (2022) determine the impact of circuit training on particular physiological elements. among female players of kho-kho. Thirty female KhoKho players from various departments at Bharathidasan University in Tiruchirappalli were chosen to carry out the study's objectives. The subjects' ages range from 21 to 23. The chosen participants were split into two equal groups at random. groups: group II, the control group, and group I, the experimental group. Each group has 15 participants. Attempting Group Six days a week for six weeks, I participated in circuit training in the only morning secessions. Group II control group receives only the same instruction as the ordinary daily activities. Pre- and post-test data have been collected to analyze the physiological characteristics, such as resting pulse rate, breath holding time, and Vo2 max. Analysis of covariance (ANCOVA) was used to statistically examine the acquired data. For each case, the level of significance was set at 0.05 of confidence. When compared to the control group, all of the selected physiological components significantly improved in the experimental groups.

Mane (2021) study was to examine the effects of the training regimen on a few key physiological factors in players of the Kho Kho sport. To accomplish the goal, players were chosen from D.B.ACS College in the Bhokar Dist.As test subjects, they were split into two groups: the experimental group and the control group. The Control Group received no particular training exercises. Circuit training was given to the experimental group for six weeks. Blood pressure (both systolic and diastolic), respiration rate, and pulse rate were the criteria variables. All of the dependent variables were evaluated both before and after the six-week training period. Discovering the posttest mean difference between the groups was made easier with the help of covariance analysis. Systolic blood pressure in the experimental group significantly decreased (CD=0.49, P0.01), whereas diastolic blood pressure did not significantly alter (CD=0.09, P>0.05). respiration rate significantly decreased (C.D. = 0.48, P 0.01), as well as pulse rate significantly decreased (C.D. = 0.52, P 0.01). In all factors, the Control Group did not exhibit any noteworthy differences.

Jadhav's (2020) research was to determine how athletes' physical fitness levels were affected by circuit training. 40 male varsity athletes from Rajarshishahu College Pathri, whose ages varied from 18 to 25, were chosen at random as subjects for the current study (n = 40). The randomly chosen subjects (n = 20) were divided into two equal groups with twenty each: the circuit training group (CTG) and the control group (CG). For six weeks, one session each day, the experimental group (circuit training) adhered to their individual experimental training. Beyond routine activities, the control group received no special instruction. Prior to and following the six-week training period, data were gathered. The differences between the two groups were computed using the independent t-test. The 0.05 level of significance was chosen. Based on the findings, it was determined that circuit training significantly improved the athletes' speed, explosive leg strength, endurance, flexibility, and agility between the pretest and posttest for the experimental group.

Muniraj (2020) examined the effects of a circuit training program using only one's own body weight on a number of schoolboys' physiological and physical characteristics. During the academic year 2014–2015, thirty (30) physically active boys were chosen at random from G. S. Hindu Higher Secondary School in Srivilliputtur, Virudhunagar Dist, Tennessee, to participate in the study. They were between the ages of 15 and 17. The chosen subjects were split into two equally sized groups, training (TG) and control (CG), totaling fifteen (15). The training group underwent three days per week for 12 weeks of own body weight circuit training, whereas the Control group received no treatment. The t test was used to examine and compute the collected data. According to the study's findings, the training group's physical and physiological characteristics (such as resting heart rate and breath holding time) were significantly altered by own body weight circuit training.

Vyas (2020) The purpose of the current study was to ascertain the motor skills of male school kabaddi and kho-kho players in the Jaipur district. In total, 50 male players from the Jaipur district who played kabaddi and kho kho between the ages of 14 and 18 were selected for the study. To compare muscular endurance, measure muscular strength, examine strength differences between kabaddi & kho-kho, assess agility in kabaddi & kho-kho, and determine speed motor ability variable in kabaddi and kho-kho players, only motor skills were employed. Using a random selection

technique, the district of Jaipur's male kho kho and kabaddi players. Subjects, variables, criterion measures, data collection, experimental design, test administrations, and statistical methods for data analysis have all been chosen. the investigation was to see that there was significant difference between the (muscular endurance, muscular strength, explosive strength, agility speed, cardiovascular endurance among school male players of jaipur district). There will be significant impact of training programme on the motor abilities among kabaddi and kho- kho school male players.

Kumar's (2019) research was to determine how a 4-week circuit training program affected the motor skills of hockey players. The study's participants were 30 black male hockey players between the ages of 14 and 17, who participated in at least one competition at the zonal level in the Distt. Kurukshetra, Haryana. To gather information, the AAPHER Youth Physical Fitness Test was used. The data were analyzed using 't' tests and descriptive statistics. For the standing long jump, the 600-meter shuttle run, the sit-up test, and the 50-meter dash of hockey players, there were significant variations between the pretest and the post-test.

Velmurugan's (2019) study was to determine how resistance training affected the physiological parameters of adolescent males who played kabaddi. 30 teenage boys who play kabaddi and vary in age from 14 to 17 will be chosen from Vidya Mandir Higher Secondary School in Ariyalur to carry out the study's objectives. The subjects (n=15) were divided into two equal groups at random. With 15 subjects in each experimental and control group, all the subjects were split into two groups. Twelve weeks of resistance training were conducted by Group I, whereas Group II served as the control group and just engaged in ordinary exercise. The physiological factors, including vital capacity, resting heart rate, and breath holding. had been chosen as the dependent variables. For the pre- and post-test random group design, this study was conducted. The difference between the mean soft two groups was ascertained using the dependent "t" test. to determine whether the experimental and control groups differed significantly from one another. Due to the effects of twelve weeks of resistance training, it was also determined that there was a substantial difference in vital capacity, resting heart rate, and breathe holding time between the experimental

and control groups. The chosen criterion variables were not improved by the control group.

Vyas (2019) examine the physiological characteristics of the male school kabaddi and kho-kho players in the district of Jaipur. In total, 50 male school athletes from the Jaipur district who play kabaddi and kho kho between the ages of 14 and 18 were selected for the study. Male players of kabaddi and kho-kho were evaluated physiologically for blood pressure, heart rate, and vital capacity. Different criteria were employed for various physiological tests, including blood pressure, pulse rate, and vital capacity. The 't' test was utilized as a stratification tool, and the level of significance was established at 0.05. The findings indicate that schoolboy male athletes' blood pressure, pulse rates, and vitality of activity were much higher. The study demonstrates that players' physiological parameters, such as systolic and diastolic blood pressure, resting heart rate, and vital capacity, all improved. Male players of kabaddi and kho-kho had lower resting heart rates.

Balasing and Night's (2018) study was to determine the impact of circuit and interval training on kabaddi players' VO2 max. 45 male kabaddi players from Tamil Nadu's Anna University Zone V universities were chosen. They were split into three groups: group I received interval training, group II received circuit training, and group III received control. For a period of 12 weeks, the two groups tested out circuit training and interval training, respectively. By using the analysis of covariance (ANCOVA), the data obtained from the three groups before and after the test were statistically evaluated to identify any significant differences. Scheffe's test was used as a post hoc test to identify any paired mean difference because there were three groups involved. The threshold for statistical significance was established at 0.05 in each example. The VO2 max of kabaddi players increased significantly after twelve weeks of circuit and interval training.

Kodgire (2018) study was to compare the effects of the SAQ and CIRCUIT training programs on specific physical fitness metrics in male school-level kho-kho players. (14 to 16 years old) Three groups of 90 players from the Nanded city were chosen at random. SAQ training in Group A. Circuit training in Group B. Control group. Exp. Group A received a circuit training program of chosen exercises whereas Group B

received a SAQ training program of chosen exercises. These training courses were delivered over the course of eight weeks in total. For testing the hypothesis, the following criteria measures were used. The unit of measurement for the speed was 1/100 second over a distance of 50 yards. Standing broad jumps were used to gauge the leg's explosive power, and meters served as the measurement's measurement unit. Bent knee setups were used to assess the muscular strength endurance, and counts served as the measuring unit.

Muneer et al. (2018) 45 University-level Women with a Purpose The Department of Physical Education and Sports at Pondicherry University, Bharathidasan Women's College in Pondicherry, and Mary Matha Arts and Science College in Manantthavady selected players for the Kho-Kho competition who had completed three years of training. They were divided into three groups: Experiment Group 1 (N=15) Playometric Training Group (Ptg), Experiment Group 2 (N=15) Circuit Training Group (Ctg), and Control Group (N=15) (Cg). Their age group ranged from 17 to 22 years. The experimental group received a resistance training program created by the researcher for six weeks (three times per week). Plyometric training was given to the Experiment Group 1, circuit training was given to the Experiment Group 2, and no specific training was given to the Control Group. Speed, endurance, agility, leg endurance, and explosive power were the performance-related variables chosen for the study. Additionally, they evaluated players' Kho-Kho skills both before and after the six-week training period. The three groups of the dependent variables were compared using the analysis of covariance to determine whether any significant differences existed. The study showed that plyometric training significantly improved the performance-related variables of university-level female khokho players.

Thiumalaisamy (2018) University men's basketball players were chosen as the subjects, and the effects of specific yoga asanas and circuit resistance training on specific physical, physiological, and psychological variables were chosen. Additionally, 45 male students from Alagappa University were chosen as the subjects. They were chosen by random sampling techniques and ranged in age from 18 to 25 years. 45 male students were chosen for this investigation. Three groups—experimental group I, experimental group II, and control group—were formed from the chosen participants. Yoga techniques were purposefully programmed to affect

experimental group I and circuit resistance. The control group and experimental group II did not receive any experimental treatment during training. After the twelve-week study period, post-test results for all three groups were collected. The discrepancy between the preliminary and final results for the circuit resistance and yogic group In this study, training group, physical, physiological, and psychological variables were used. In this study, "co-variance" analysis was used. The confidence level for the level of significance was set at 0.05. The significant difference between the matched means was determined using the Scheffe's post hoc test. Circuit resistance training is a more effective on specific physical, physiological, and psychological variables.

S. Sumathi (2017) among kho-kho players, the impact of circuit training on specific strength metrics. Thirty kho-kho players from Sri Sarada College of Physical Education for Women in Salem, Tamil Nadu, were chosen at random as subjects for the current study; their ages ranged from 18 to 25. The participants were split into two equally sized groups. The study was created using a pre- and post-test and a true random group design. The 30 participants were divided into two equal groups of 15 kho-kho players each at random. In a similar way, the groups were given the labels "control group" and "experimental group." The post-tests were administered after the training group had completed its six weeks of instruction. Shoulder strength, upper body strength, explosive power, and anaerobic power tests were conducted on the participants both before and after the trial. All subjects provided the variable that would be used in the current investigation before they were given the appropriate treatments. The pre-test assumption was made. They were retested on all the variables utilized in the current study after the course of treatment, just as they were in the pre-test. We considered this test to be a post-test. The data were processed using the following statistical techniques in order to address the defined hypothesis and study goals. The treatment effect of the training programs on all the study's variables was examined using analysis of covariance (ANCOVA). It was found that the selected strength metrics of kho-kho players had greatly improved after six weeks of circuit training.

Singh (2017) effect of a 4-week circuit training program on kho-kho players' motor skills. The study's participants were 30 male kho-kho players between the ages of 14 and 17 who have competed at least in zonal level tournaments for schools in Rohtak.

The AAPHER youth physical fitness test was used to get the information. To analyze the data, descriptive statistics and the 't' test were used. Pre-test and post-test results for the standing broad jump 600 meters, shuttle run, sit-ups, and 50-meter dash of Kho-Kho players all showed significant differences.

Kumar (2016) sought to determine how circuit training affected a few specific motor skills in male university students. At Guru Nanak Dev University in Amritsar, Punjab (India), the Department of Physical Education (T) chose 60 boys ranging in age from 18 to 25 as study participants. The participants were purposefully split into two groups: experimental Group-A (N1=30) and control Group-B (N2=30). The study's goal and procedures were explained to each volunteer. The participants in Group-A underwent an 8-week Circuit Training Program. Group B served as the control group, participating in only the standard schoolwork and no additional training. The statistical significance of the pre- and post-mean differences for each age group was determined using the T-test. At a level of confidence of 0.05, the significance level was chosen. According to the study's findings, circuit training greatly increased the subjects' speed, leg power, arm power, and agility.

Raju and Babu (2016) to determine how circuit training affects football players' ability to build endurance. Twenty male football players from Andhra University made up the sample for this study, of which 10 were in the experimental group and 10 were in the control group. The experimental group received the circuit training on alternate days, or three sessions per week, while the control group received the general training for six weeks. The circuit training consists of six to ten strength exercises that are performed one after another. Examples include squat jumps, medicine ball throws, sit-ups, steps-ups, hopping shuttles, skipping, and sit-ups. Cooper tests lasting 12 minutes were used as pre- and post-tests to gauge the endurance of the experimental group and the control group.

This study demonstrates that the experimental group's endurance performance improves as a result of circuit training, while the controlled group's endurance performance declines. It has been determined that football players' endurance will increase as a result of circuit training.

Ali and Cherappurath (2015) comparative Effect of Two Resistance Training Menu on Selected Performance Related Variables of University Level Women Kho-Kho Players. The Department of Physical Education and Sports at Pondicherry University, Bharathidasan Women's College in Pondicherry, and Mary Matha Arts and Science College in Manantthavady picked 45 university-level women Kho-Kho players who had completed three years of training for this purpose. They were separated into three groups based on age: Experiment group 1 (n=15) Plyometric training group (PTG), Experiment group 2 (n=15) Circuit training group (CTG), and Control group (n=15) (CG). Their age ranged from 17 to 22 years. Three times each week for six weeks, the researcher's resistance training program was administered to the experimental group. Plyometric training was provided to experiment group 1, circuit training to experiment group 2, and no training at all to the control group. Speed, endurance, agility, leg endurance, and explosive power were the performance-related variables that were selected for the study. Additionally, they evaluated players' Kho-Kho skills both before and after the six-week training session. Analyzing ANACOVA revealed significant differences between the three sets of dependent variables. The study found that plyometric training significantly enhanced the performance-related factors of female university-level Kho-Kho players.

In order to compare the effects of resistance training and endurance training on resting heart rate and explosive power, **Reddy (2015)** studied the effects of both strategies. Thirty (N=30) female degree college students from K.V.R.College in Nandigama, Krishna Dist, Andhra Pradesh, India, were chosen at random as subjects for this study. They were split into two equal groups, each with fifteen people (n=15). Resistance and endurance exercises were performed in series and parallel in Group I, while Group II served as the control group. Heart rate at rest and explosive power were both measured for both groups utilizing bio monitors, with explosive power expressed as a horizontal jump. The training group conducted strength and endurance training in series and parallel over a 12-week period (six weeks for series training and six weeks for parallel training), while the control group received no particular training. Researchers have found that healthy untrained women have considerably enhanced resting heart rate and explosive power both before and after training.

2.3 Intensive Interval Training

Bhomik (2023) study was to ascertain how certain training affected particular physical and physiological variables in college-level male athletes. Thirty male athletes were chosen at random from Ramakrishna Mission Vivekananda University and Maruthi College of Physical Education in Periyanaickenpalayam, Coimbatore, to fulfill the goal. The subject was between the ages of 18 and 24. The chosen participants were split into two groups, each with 15 participants: group A was the experimental group, and group B was the control group. The experimental group received specialized instruction. The following criterion factors were chosen for the physiological variables, such as breath holding duration and resting heart rate, as well as for the physical variables, such as speed, agility, and leg explosive power. Each subject's data was gathered both before and after the eight weeks of specialized training. The 't' ratio was used to statistically assess the collected data. The use of particular training has been demonstrated to significantly improve speed, agility, and leg explosive power. Additionally, it was shown that the use of particular training significantly reduces the amount of time spent holding your breath and increases your resting heart rate.

Kumar et. al. (2022) study is to assess how the National Kho-Kho players' functional mobility, balance, and agility are affected by intensive short-term functional strength training. Thirty-five male and twenty-five female National Kho-Kho players were enlisted for the study's Kho-Kho camp. The players received two weeks of strength- and balance-based training, and then data on functional mobility, balance, and agility were collected before and after the training, respectively. Both male and female Kho-Kho players showed a substantial improvement in FMS composite scores after the intervention was in place for two weeks ($p=0.001$). Balance showed a substantial improvement after two weeks of the intervention, with close eye, and dynamic for both feet, for single foot comparison. Significant changes were seen in agility as well. Illinois exam, 40-meter run.

According to Taufik et al. **(2021)**, research, circuit training and interval training both have the potential to increase VO2max capacity. We employed a quasi-experimental in this investigation. Pre-, post-, and control group designs are the method. 156 athletes from the Futsal Academy in the Indonesian city of Cianjur were included in

the sample. Thirty athletes took part in this study, and the sample was chosen using the random sampling method. The interval training group (n=15) and the circuit training group (n=15) were each given a group of the samples. 18 sessions, held three times a week for two months, comprised the study. The study's instrument was a multi-stage beep test. Analysis of variance statistics (ANOVA) were used to analyze the data using SPSS 21. According to the study's findings, they were collected from the interval training and circuit training groups, with the circuit training group's VO2max increasing by 0.63 with a value of 0.00.

Rai and Yoga's (2020) to determine how speed among male Kho-Kho players is affected by SAQ (speed, agility, and quickness) training. Thirty Kho-Kho players from the Alagappa University College of Physical Education in Karaikudi, Tamil Nadu, India, were chosen to conclude the study's reasoning. The person is between the ages of 18 and 25. The chosen subject was then divided into two identical groups, the experimental group and the control group, each consisting of 15 male students. In this study, speed was used as a criteria variable. The shortlisted candidates underwent a (50-meter dash) test to assess their speed. Prior to the training period, a pre-test was conducted, and immediately after the seven weeks of training, a post-test was conducted. The means of the pre-test and post-test data for the experimental and control groups were analyzed using the statistical approach 't' ratio. The findings showed that the criteria variable had a substantial variance. When compared to the control group, the experimental group received SAQ (speed, agility, and quickness) training on speed, which is what led to the observed result.

Bhavani et al. (2016) with an isokinetic analyzer, compare pre- and post-values for peak torque in the ankle dorsi- and plantar-flexor muscles. To compare the athletes' pre- and post-test agility scores using the Illinois T test. A quasi-experimental study method was used, and 30 female kho-kho players (n=30) were chosen at random.Players ranged in age from 18 to 25.All athletes participated in warm-up and cool-down drills.

One session each day, three days per week, for six weeks, of plyometric exercise. Agility and muscle mass at the ankle joint. The analysis's findings showed a

substantial improvement in agility and ankle muscle strength (p 0.00). According to the study, khokho players' ankle strength and agility have significantly improved.

Das and Chatterjee (2019) Pre-Post Purposive Sampling was employed for the investigation. Men competing at the state level at Kho Kho totaled fifteen (N=15), and they were evenly divided into three groups: HIITG, MIITG, and CG. Ages varied between 17 and 20. High and Moderate Intensities were recorded during the varied anaerobic capacity test and the 50-meter drill. For six weeks, three days per week, each experimental group received a distinct sort of training, while the control group received no training at all. Through the use of the Running Based Anaerobic Sprint Test (RAST), data was gathered both before and after the administration of training. Power in watts has been used to measure anaerobic capability. Levene's Test of Equality, descriptive statistics, ANCOVA, and the Bonferroni Post-hoc Test were also used for the statistical study. For each examined measure, the effect magnitude was provided with a 95% confidence level. The significance level was chosen at p-0.05. SPSS (Trial Version) was used for all of the statistical analysis. The anaerobic capacity of Kho-Kho players was significantly impacted by six weeks of high and moderate intensity interval training.

Kulothungan et. al. (2019) the study was to determine how kho-kho players' maximal oxygen consumption (Vo2 max) was affected by intense and extensive interval training. Thirty male Kho-Kho players from Annamalai University in Chidambaram, Tamil Nadu, India, were randomly chosen for the study and split into three groups of 10 players each. The subjects were between the ages of 18 and 25. Two experimental variables—intense interval training and extended interval training—were used in this investigation. Maximum oxygen uptake (Vo2 max), the chosen dependent variable, was evaluated using techniques and tools that adhered to scientific norms. For twelve weeks, three days a week, the experimental groups experienced their separate training regimens. 'ANCOVA' and the Scheffé S test were employed to statistically analyze the variations on the criteria variables. The data analysis showed that experimental treatments significantly improved some criteria variables. maximum oxygen uptake (Vo2 max) during intense interval exercise. These findings imply that interval training with varying intensities may be used depending on the player's requirements.

Murugavel and Nirendan (2019) look at how the intercollegiate men's kho-kho players' selected skill-related physical fitness factors are affected by the speed training program. Thirty male kho-kho players from the Department of Physical Education at Bharathiar University in Coimbatore were chosen to carry out the study's objectives. They were between the ages of 18 and 25. The individuals were divided into two equal groups at random (n=15). Group II served as the control group (N=15), whereas Group I underwent speed training (experimental group). For eight weeks, the experimental group received speed training three days a week (Monday, Wednesday, and Friday). Except for their usual duties, the control group received no training. Standardized tests were used to assess the subjects' cardiorespiratory endurance (12-minute Cooper's run and walk test), agility (shuttle run rest), and speed (50-meter dash). The individuals' data were statistically examined using the t ratio to determine if there had been any appreciable improvement at the 0.05 level of confidence. With the restrictions of nutrition, climate, lifestyle, and prior training, the results of speed, agility, and cardiorespiratory endurance considerably improved. The conclusions of the inquiry conducted by several specialists in the field of sports sciences and those of the current study are in agreement.

Zala (2019) to determine the impact of interval training on kho-kho players' skillrelated physical characteristics. Thirty intercollegiate kho-kho players from Gujarat's Anand and Nadiad cities were chosen at random as subjects for the current study; their ages ranged from 17 to 21. The participants were split into two equally sized groups. The 30 participants were divided into two equal groups of 15 kho-kho players each at random. The post-tests were carried out after the interval training group had trained for six weeks. Prior to and during the trial, the volunteers underwent testing for speed, speed endurance, and agility. The treatment effect of the training programs on all the study's variables was examined using analysis of covariance (ANCOVA). It was found that the selected skillrelated physical characteristics of kho-kho players had dramatically improved after six weeks of interval training.

Meeravali et. al. (2015) In this study, male high school kho-kho players' physical fitness, physiological, psychological, and skill factors were chosen in order to determine the impact of specialized training on each. Using the random sampling

approach, 30 kids from the Sri Ramakrishna Mission Vidyalaya Swami Shivananda Higher Secondary School, SRKV post, Periyanaickenpalayam, Coimbatore, Tamil Nadu, were chosen as subjects for this project. The subjects were between the ages of 11 and 14. Two groups of fifteen each were formed from the chosen subjects (N=30). The control group did not participate in any specific training; instead, they continued with their normal activities while the experimental group completed the specified training for three days per week from 4.30 to 5.30 pm for a total of six weeks. 't' ratio was calculated to findout the significance difference between the mean of pre and post test of the group. The study's findings indicate that the experimental group had received specialized instruction and had improved in terms of speed, agility, and endurance. physiological parameter, namely vital capacity, Stress is a psychological variable, and pole diving and covering are skill variables. This can be as a result of the impact of certain training.

T. Nagaraju et al. (2015) determine the impact of separate and combined strength and endurance training on the strength endurance of Kho Kho players, Sixty male kho kho players were chosen as the study's participants for the academic year 2014– 2015 from among those enrolled in various colleges associated with Acharya Nagarjuna University in Nagarjuna Nagar, Guntur, Andhra Pradesh, India. The subjects, who ranged in age from 18 to 22, were chosen at random and divided into four equal groups of fifteen each. To determine if there were any statistically significant differences between the pre- and post-test, the data obtained from the experimental and control groups on the chosen dependent variable was statistically examined using the paired 't' test. Additionally, percentage changes were calculated to determine the likelihood that particular dependent variables would change as a result of the experimental treatment. Data obtained from the four groups before and after the experiment on a few dependent variables were statistically evaluated to determine whether there was any significant difference, if any, by using the analysis of covariance (ANCOVA), in order to cancel out the original mean differences. Since there were four groups involved, the Scheffe's test was used as a post hoc test to identify any paired mean differences since the derived 'F' ratio value in the adjusted post test mean was frequently found to be significant. The study's findings indicate that the subjects' strength and endurance have increased significantly as a result of

both separate and combined strength and endurance training. The study's findings also showed improvements of 11.91% due to strength training, 20.76% due to endurance training, and 25.79% owing to combination training.