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Exploration of The Traditional Game of Galah Hadang: Does it Effect The Concentration, Agility and Endurance of Early Age Badminton Players?

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³ Abstract

This study aims to determine the effect ⁸ of traditional galah hadang games on concentration, agility and endurance in early athletes aged 8-11 years. This study used an experimental method with a design of one group pre-test post-test. The population in this study was 20 badminton athletes at an early age PB (Badminton Union).PT. One asahan. The sample in this study was 20 badminton athletes PB (Badminton Union).PT. One Asahan with sampling using total sampling. The analytical technique used is quantitative descriptive which is analyzed by the Paired T Test. The results showed a sig value of $p= 0.00 (< 0.05)$ so that it was concluded: There is an influence of the traditional game of galah hadang on increasing the concentration of early age badminton athletes, there is an influence of the traditional game of galah hadang on increasing the agility of early age badminton athletes, and there is an influence of the traditional game of galah hadang on increasing the endurance of early age badminton athletes. With the results of this study, it is expected that there will be a new study that develops a traditional game training model of galah hadang applied to early age badminton athletes.

Keywords: Agility; badminton; concentration; endurance; galah hadang.

1. Introduction

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Traditional games were very popular before technology entered Indonesia, and in the past children did traditional games using makeshift tools (Saputra, 2017). Traditional games are a cultural heritage in a country that must be preserved because traditional games are very popular in all levels of society including Indonesia (Hanief & Sugito, 2015). Traditional games can also improve children's basic skills and physical abilities (Saputra & Ekawati, 2017). Indonesia is a country that has a variety of traditional games that are characteristic (Anggita, 2018; Rusli et al., 2022). Traditional games are games that make children feel happy and happy in doing traditional games (Kamid et al., 2022; Putranta et al., 2022). In line with this statement, Mashuri concluded that traditional games are games from ancestors that have been preserved for generations to have noble values that are able to strengthen (Mashuri, 2021).

Throughout the archipelago area Indonesia has its own traditional games with regional peculiarities and plays using their respective regional languages (Hayati & Hibana, 2021). Each region in Indonesia has its own traditional ³ games according to the culture owned and passed down from ancestors (Syamsurrijal, 2020). Based on the description above, it can be concluded that traditional games are a culture that has developed to this day and a game of historical relics of ancestors that have positive values for society and have many benefits for children so that they become the identity of the nation.

Traditional games can be done together, interacting with each other, and expressing both mentally, physically, disciplined and emotional attitudes (Muazimah & Wahyuni, 2020). In traditional games, there are motor, physical, social, affective and psychomotor aspects (Adi et al., 2021). Traditional games are not just games but traditional games can also be done in sports learning and training methods (Junaedah et al., 2020). This can be seen from traditional games used as learning media to improve children's psychomotor, social, concentration and motor and used as sports training media in an effort to improve physical conditions such as agility, balance, endurance and speed (Lembang et al., 2022).

The approach, strategy, or training model in achieving achievements is something that continues to develop in accordance with the demands of increasingly fierce competition in sports competitions, including in badminton (Ishak et al., 2022). Exercise is a very basic factor in achieving peak performance in sports activities, especially sports achievements (Ichsanudin & Gumantan, 2020). The quality of training is determined by the circumstances, the ability of the athlete and coach, so that these elements must have high competence, ability and commitment to achieve the best results (Marpaung & Manihuruk, 2022).

Exercise with the game method for children is an exciting thing for child¹⁴ without realizing it is also an effort to increase achievement (Indra & Marheni, 2020; Siregar et al., 2018). Exercise with traditional game methods is a physical activity in the form of a game so it is very good to be used in improving skills, concentration, social and physical conditions for early age athletes (Mahfud & Fahrizqi, 2020). Various forms of traditional game that can be done in the training process such as gobak sodor, engklek, jump rope, sack running, wooden getrik and galah hadang (Usup et al., 2022). Galah hadang is a traditional sports game that does not use any tools like other traditional games (Bernhardin, 2021).

The galah hadang game is a traditional game that uses movements on the hands and feet by playing such as, running quickly and touching limbs to friends who are running past guards in each guarded box (Machmud et al., 20¹⁰). The essence of the galah gadang game is to prevent the opponent from entering or passing past the last line back and forth, and to achieve victory all group members must actually pass through the designated field area and children are given the flexibility to express psychomotor, psychological, cognitive, and affective abilities (Sapitri et al., 2021). However, this study focuses on the galah hadang game to see whether the traditional game galah hadang of is effective on concentration, agility and endurance for early age badminton athletes.

Badminton is a sport that must think very quickly during the game and make the necessary movements⁶ chniques that are important to be able to hit the shuttlecock to the target or targets and badminton is a game that requires agility and balance in reaching the shuttlecock (Green et al., 2023; Marpaung & Manihuruk, 2022). The movement in badminton is to reach the shuttlecock by stepping as fast as possible while continuing to maintain good balance and keep the body under control (Sepdanius et al., 2018).

Badminton is a game sport that demands very complex physical conditions such as, speed, agility, flexibility and balance. Badminton is a very popular sport that is played using rackets and shuttlecocks with the aim of dropping shuttlecocks on the opponent's court and is in dire need of anaerobic endurance in the game of badminton (Tan et al., 2023; Zarwan & Hardiansyah, 2019). From the description above, it can be concluded that badminton is a sport that uses rackets, nets, shuttlecock and requires the concentration of an athlete in training and matches and physical conditions needed in badminton games to achieve an achievement at provincial, national and international levels.

The aspects found in the galah haadang game are concentration, agility, and endurance (Machmud et al., 2021). These three aspects are a basic element for an early age badminton athlete in carrying out badminton games, for example, such as training and matches require concentration, and when doing the movement of chasing the ball requires agility and endurance (Kurniawan et al., 2022). Concentration and physical condition when making fast, precise and flexible movements enable early age badminton athletes to perform maximum games (Roure & Dieu, 2022).

However, this is rarely applied by badminton coaches when providing training, this simple training method should be used as an encouragement for early age badminton athletes to train in clubs in Indonesia (Adiluhung et al., 2020). Exercise through a traditional game approach has a good added value for early age badminton athletes, in addition to practicing concentration and physical condition, early age athletes can get to know their own culture, namely the galah hadang game. Exercises are commonly applied in badminton games with shadow training methods and drilling exercises, so it is necessary to vary the exercises with traditional games carried out to make athletes excited and not bored with the exercises given.

Exercise in sports with a local wisdom approach is very rarely found, even in badminton sports training itself only applies ordinary physical exercise, but the physical exercise used is not a traditional game galah hadang but physical exercise for basic badminton exercises, for example shadow training and drilling.

2. Method

This type of research is research with experimental methods. The experimental method is a method that can be done to see whether there is any effect from the treatment given. The experimental method used in this research is quasi-experimental or pseudo experimental. This study used a pretest posttest group design. The population in this study was 20 athletes PB.PT. One Asahan. Sampling in this study used total sampling techniques. Total sampling is a sampling technique from the population of all used as research subject of 20 athletes early age 8-11 years PB.PT. One Asahan. Research sample who are willing to take part in the treatment with the full number of attendance and take the initial test (pre test), treatment and final (post test) who have obtained consent from parents, coaches and management. This research was carried out at the badminton court on Jalan Marah Rusli No.40, Asahan Regency, North Sumatra. The treatment in the form of traditional games was carried out with a frequency of 3x/week, for 8 weeks, this study began on 3 October 2022 to 3 December 2022. In traditional game medicine galah hadang applies a system of exercises performed at weeks 1 to week 3 have 5 sessions, at weeks 4 to week 6 have 4 sessions, and at meetings week 7 to week 8 have 6 sessions. The data collection technique in this study was sourced from PB.PT One badminton athletes early age of the 20 people has gone through testing the results of three aspects, namely concentration, agility and endurance. The concentration test uses Grid Concentration test, for agility using the shuttle run test, and for endurance using the Yo-yo intermittent recovery test. Data were analyzed using paired t-test techniques with the SPSS 23 program, the significance level was set at 5%.

3. Result

Based on the results of research obtained from field measurements and analyzed using SPSS 23 the results are obtained as in table below.

Table 1. Normality Results Data

Measured	Result Pre-test	Result Posttest	Category
Concentration	0,442	0,368	Normality
Agility	0,996	0,808	Normality
Endurance	0,092	0,789	Normality

Based on the data analysis conducted in table 1 above, pre-test and post-test results of concentration, agility and endurance are normality distributed.

Table 2. Homogeneity Result Data

Measured	Result Pre-test and Post-test	Category
Concentration	0,560	Homogeneity
Agility	0,215	Homogeneity
Endurance	0,974	Homogeneity

Based on the data analysis conducted in table 2 above, pre-test and post-test results of concentration, agility and endurance are homogeneity distributed

Table 3. Results of Data Analysis with the Paired T-Test Technique

		Paired Differences					T	df	Sig. (2-tailed)
		Mean	Std. Dev	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Concentration-Concentration	17.47	3.83	0,60	16.248	18.70	28.809	39	0,00
Pair 1	Agility-Agility	14,55	285,52	45,145	13.235	14,85	31.023	39	0,00
Pair 1	Endurance-Endurance	-17.80	4.334	685	16.414	19.18	25.978	39	0,00

Sig. (2-tailed) paired t test value for concentration gets a sig value of 0.00, agility of a sig value of 0.00, and durability of a sig value of 0.00 which means there is a difference from before and after treatment. From the results of the Paired t test data analysis to get a sig result smaller than 0.05, it can be concluded that training with the traditional galah hadang game approach method affects the concentration, agility and endurance of early age badminton athletes.

4. Discussion

This study was conducted with 1 group only or no control group. With the application of only using 1 group, all badminton athletes have the same opportunity to be given the treatment of the traditional game galah hadang which has been compiled and prepared within 8 weeks. Traditional Galah hadang is performed to improve the physical condition of badminton athletes.

Physical condition is very necessary for early age badminton athletes to improve their achievements. Research conducted by Nugroho et al state¹ that physical conditions are necessary for badminton athletes as the results of research prove the influence of the trapping circuit training method on the ability of strength, speed and agility, based on the results of the analysis it is known that the group that obtained the best results was group 3 (A1B2) which was given a series of trapping exercises with an intensity of 80% at intervals of 1: ½, with the change in strength increased by 43.78%, speed increased by 31.42% and agility increased by 9.66%. The group that showed the fewest results was group 2 (A2B1) namely group 2 (A2B1) given trapping circuit training with an intensity of 60% at 1:1 intervals with changes in strength increased by 1.75%, speed decreased by 3.25% and agility decreased by 4.43% (Nugroho et al., 2021). From the description above, it can be concluded that badminton athletes need good physical condition in achieving achievements.

Sports exercise carried out on early athletes should not only be oriented towards improving skills and physical abilities, but early badminton coaches must also pay attention to the development of athlete behavior, concentration, and character. In line with the above opinion, Yuliawan & Firdaus said that to get good achievements for early age badminton athletes, a long training process is needed and character and concentration training is needed for early age athletes (Yuliawan & Firdaus, 2018). Sports coaching policies in one country are different from other countries and policies have implications for goals, implementation, strategies, models, training processes carried out and sports are one of the sectors that need to be considered by the government to continue to achieve world achievements in every sport branch (Jopang, 2018). The ability to concentrate and physical condition is a hot issue that is often a review of several research results in the field of sports coaching, but so far to the knowledge of researchers there is still little or no research on the test of the effect of the training process using the traditional game of galah hadang which at the same time three variables can increase together in a badminton training treatment.

³ This study aims to determine the effect of the exercise games traditional galah hadang on the concentration, agility and endurance of badminton early age athletes. Based on table 1 shows that there is an influence of the traditional game of galah hadang the concentration, agility and endurance of early age badminton athletes. In research conducted by early age athletes feel happy and do not feel bored with training methods using traditional games of galah hadang. Without realizing it, early age badminton athletes continue to move which triggers an improvement in the physical condition of athletes and in traditional games galah hadang and athletes perform according to instructions from researchers, as well as coaches as a driving medium to direct athletes in carrying out traditional games galah hadang in accordance with instructions that have an impact on aspects of in concentration during exercise and matches.

The traditional games galah hadang process is given to early age athletes by dividing 20 athletes into 4 teams, one team consisting of 5 athletes. The traditional game process of the athlete's galah hadang moves continuously to pass the opponent who is in the way so as to get victory. The results of the study found that the traditional game of galah hadang affects concentration, the results of this study are in line with the opinion of Juniarti et al who said that the traditional game of galah hadang is not just a game but a game designed in such a way that it can develop many skills such as logical thinking, building strategies, concentration, in other words the traditional game of galah hadang can act as a tool study and exercise (Juniarti et al., 2022). The opinion of Imaniyah & Zuroida states that traditional games not only contain elements of pleasure, but also contain psychological values such as concentration (Imaniyah & Zuroida, 2020).

The traditional game conditions of galah hadang are related to setting strategies when playing to be able to pass opponents in accordance with the purpose of the traditional game of galah hadang, if the traditional game objectives of galah hadang require concentration then setting strategies also requires

concentration such as during training and badminton matches. Strategy setting in badminton requires concentration in accordance with Sadzali's opinion which states that good concentration in badminton can help players to make the right decisions, improve techniques and strategies, and face pressure from opponents or difficult situations (Sadzali, 2023). From the explanation above, in accordance with the opinion of Gusrinaldi et al who said that to achieve high achievements, early age athletes must have good technical, physical, tactical and mental aspects (Gusrinaldi et al., 2020).

The results of research with the traditional game of galah hadang there was an influence on the agility of badminton athletes early aged 8-11 years. When doing the traditional game of galah hadang, athletes play while running and passing opponents by dodging right and left like a step movement in a badminton game to reach shuttlecocks, so in badminton requires good agility. The opinion of researchers is in accordance with Karyono's opinion which states that badminton games require fast movement to change direction to chase shuttlecocks to all corners of the court and to chase shuttlecocks quickly it requires high agility (Karyono, 2016). The agility of the physical component which is very important in badminton, this is so that athletes can move in all directions quickly and precisely to chase or return shuttlecocks to the opponent's field area (Rifai et al., 2020).

The results of research on traditional games of galah hadang affect the aerobic endurance of early age badminton athletes which can be concluded that traditional games of galah hadang can be done for aerobic endurance enhancement exercises. In the game of badminton the ability of good or high aerobic endurance is highly prioritized, because the game of badminton requires strong energy and endurance in playing (Priambodo, 2017). The explanation above is in accordance with the opinion of Tai et al which states that aerobic endurance capacity is very important for badminton athletes in determining the best performance during training and matches (Tai et al., 2022). From the research conducted by Wee et al said that training in badminton is important to do aerobic endurance training because the duration in badminton sports is long (Wee et al., 2019).

The traditional game of galah hadang is carried out routinely and regularly in accordance with the principles of training so that it affects the concentration, agility and aerobic endurance of early age badminton athletes. In traditional games, elements include concentration, muscle strength, muscle flexibility, agility, movement speed and balance, and aerobic endurance (Bile et al., 2021). Proper, regular and continuous physical exercise is a component that contributes to improving one's physical condition (Bile & Suharharjana, 2019). This study was conducted to explore whether the traditional game of galah hadang effects concentration, agility and endurance in badminton athletes early aged 8-11 years. Several studies conducted research on the traditional game of gobak sodor such as research conducted by Frans et al which said that the traditional game of gobak sodor had an effect on increasing tai sabaki in kempo sports (Manihuruk et al., 2022), then the results of research conducted by Flaviani et al who said that the traditional game of gobak sodor can affect the agility of futsal athletes (Flaviani et al., 2023).

5. Conclusion and Recommendation

The traditional game of galah hadang is an Indonesian cultural heritage that has been passed down from ancestors who have positive values, and can improve concentration, agility and physical condition, so it needs to be maintained and applied to badminton training by coaches. From the results of the study can be concluded: 1). There is an influence of the traditional game of galah hadang on increasing the concentration of early age badminton athletes, 2). There is an influence of the traditional game of galah hadang on increasing the agility of early age badminton athletes, 3). There is an influence of the traditional game of galah hadang on increasing the endurance of early age badminton athletes.

From the results of the research obtained, training with the traditional game method of galah hadang becomes an alternative to variations of badminton exercises that can be applied by coaches to improve concentration, agility and endurance. With the application of the traditional game galah hadang the form of training becomes a variation so that badminton athletes can training as well as play which makes training not bored.

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