COMPETITOR:
JURNAL PENDIDIKAN KEPELATIHAN OLAHRAGA
e-ISSN: 2657-0734 & p-ISSN: 2085-5389 ‖ Volume 18, Number 2, 2026 ‖ P.3856-3862

Overview of the Physical Condition of SSB Teratai Jambi Football Athletes

Arza Gustira[1A-E*], Adhe Saputra[2B-D], Yusradinafi[3B-D], Yonifia Anjanika[4B-D], Ely Yuliawan[5B-D]

[1,2,3,4] Universitas Jambi, Jambi, Indonesia

arzaagustira99@gmail.com[1], adhe_saputra@unja.ac.id[2], yusra.dinafi@unja.ac.id[3], yonifia.anjanika@unja.ac.id[4], elyyuliawan.fik@unja.ac.id[5]

ABSTRACT

This study aimed to determine the physical condition level of SSB Teratai Jambi football athletes, including the components of speed, agility, and aerobic endurance. This research used a quantitative approach with a descriptive research design. The population of this study consisted of 18 SSB Teratai Jambi football athletes, and all population members were selected as the sample using a total sampling technique. The research instruments included a 30-meter sprint test to measure speed, the Hexagonal Obstacle Test to measure agility, and the Bleep Test to measure aerobic endurance (VO2Max). The data were analyzed using descriptive statistics in the form of mean scores, percentages, and category distributions. The results showed that the average speed test result was 4.08 seconds in the good category, the average agility test result was 13.06 seconds in the good category, and the average aerobic endurance (VO2Max) result was 46.85 in the moderate category. Based on the findings, it can be concluded that the physical condition of SSB Teratai Jambi football athletes was generally categorized as good, particularly in the speed and agility components. However, the aerobic endurance component still needs improvement through more structured and continuous physical training programs.

ARTICLE HISTORY
Received: 2026/05/18
Accepted: 2026/05/20
Published: 2026/05/25

KEYWORDS
Physical Condition
Speed;
Agility;
Endurance;
Football.

AUTHORS' CONTRIBUTION
A. Conception and design of the study;
B. Acquisition of data;
C. Analysis and interpretation of data;
D. Manuscript preparation;
E. Obtaining funding

Cites this Article : Arza Gustira[1A-E*], Adhe Saputra[2B-D], Yusradinafi[3B-D], Yonifia Anjanika[4B-D], Ely Yuliawan[5B-D]. (2026). Overview of the Physical Condition of SSB Teratai Jambi Football Athletes. **Competitor: Jurnal Pendidikan Kepelatihan Olahraga**. 18 (2), p.3856-3862

INTRODUCTION

Sport plays a vital role in improving health, physical fitness, and the quality of life. Sporting activities also serve as a means of developing physical, mental, social, and achievement skills, especially for children and adolescents during their growth and development. Early childhood sports development is considered to foster character traits such as discipline, sportsmanship, cooperation, and responsibility in everyday life (Mukhlisa & Faruk, 2022). Football is a very popular and growing sport in Indonesia. Its popularity is evident in the high public enthusiasm for various competitions and development activities conducted through football schools (SSB).

Football is a team game that requires technical, tactical, mental, and physical skills to enable players to perform optimally during matches. The characteristics of football are characterized by high-intensity physical activity such as sprinting, changing

direction, jumping, dribbling, and making quick transitions between attack and defense (Yustika, 2018). These activities require football players to be physically prepared to support effective play on the field.

Physical condition is a key component in achieving sporting success. Athletes in good physical condition tend to be able to execute game techniques and strategies optimally compared to athletes with poor physical condition. In football, the dominant components of physical condition include speed, agility, and aerobic endurance (David Mahendra, 2022). These three components are closely related to player performance during the match. Speed is a player's ability to perform rapid movements in a short time, especially when sprinting after the ball or attacking. Good speed can help players win ball duels and create scoring opportunities (Pramono, 2015). In addition to speed, agility is also an important component in football because players Players are required to be able to change direction quickly without losing balance. Good agility helps players avoid opponents and maintain possession of the ball in dynamic game situations (Sutiyoso et al., 2025).

Aerobic endurance also plays a crucial role in football because matches are relatively long and high-intensity. Players with good aerobic endurance will be able to maintain their performance throughout the match and will not tire easily (Adelina & Anam, 2023). Good aerobic endurance also supports more effective energy recovery during the match. Physical development in young football athletes needs to be planned and continuous. A good physical training program will help improve athletes' biomotor skills according to the needs of the sport. Regular physical condition evaluations are also important to determine the athlete's ability level and serve as the basis for developing a more effective training program (Muharram, 2016). This evaluation can be conducted through various methods. forms of physical tests such as speed tests, agility tests, and aerobic endurance tests

Previous research has shown that the physical condition of young football athletes still requires attention in the training process. The results of research by Bakhtiar et al., (2026) show that some young football athletes still have a moderate level of physical condition so that a more optimal physical training program is needed. Other research also explains that evaluating an athlete's physical condition is crucial for identifying their strengths and weaknesses, which can be used to develop more specific and targeted training (Ridwan, 2020). Furthermore, programmed physical training can significantly improve a football athlete's performance. A training program tailored to the athlete's age and needs will help improve a player's biomotor abilities, particularly in endurance, speed, and agility (Putra et al., 2023). Therefore, physical fitness development is a crucial part of the development process for young football athletes.

SSB Teratai Jambi is one of the football schools actively developing young athletes in Jambi City. Although relatively new, SSB Teratai Jambi has demonstrated progress in various regional and national competitions. However, observations of several matches indicate a decline in athletes' physical performance during matches, particularly in endurance, speed, and agility. This can impact the quality of play and achievement.

Athletes. Based on this description, research is needed to determine the physical condition of SSB Teratai Jambi football athletes, based on speed, agility, and aerobic endurance. This research is expected to provide information and serve as evaluation material for coaches in developing more effective physical training programs to improve the performance of young football athletes.

METHODS

This study used a quantitative approach with a descriptive approach. Descriptive research was used to describe the physical condition of SSB Teratai Jambi football athletes based on measurements of several components of physical condition. The study was conducted at the Persijam Field in Jambi City in December 2024. The population in this study consisted of 18 SSB Teratai Jambi football athletes, and the entire population was sampled using a total sampling technique. The variables studied included speed, agility, and aerobic endurance of the football athletes.

Data were collected through physical condition tests and measurements. Speed was measured using a 30-meter sprint test, agility using the Hexagonal Obstacle Test, and aerobic endurance using the Bleep Test to determine the athletes' VO2Max capacity. The test data were analyzed using descriptive statistics in the form of average values, percentages, and category distributions to describe the physical condition of SSB Teratai Jambi football athletes.

RESULTS AND DISCUSSION

Result

The results of the study were obtained through physical condition tests consisting of a 30-meter sprint test, agility test using the *Hexagonal Obstacle Test*, and aerobic endurance test using the *Bleep Test* to determine the athletes' VO2Max ability. The research data were analyzed using descriptive statistics to determine the overview of the physical condition of SSB Teratai Jambi football athletes based on the test results obtained.

Table 1.
Descriptive Statistics of the Physical Condition of SSB Teratai Jambi Football Athletes

Variables	Mean	Highest Score	Lowest Score	Standard Deviation	Category
Speed (30 Meter Sprint)	4.08 seconds	4.00	4.40	2.10	Good
Agility	13.06 seconds	11.00	18.40	2.54	Good
Aerobic Endurance (VO2Max)	46.85	55.70	38.30	5.86	Moderate

Based on Table 1, the average result of the speed test for SSB Teratai Jambi football athletes was 4.08 seconds and categorized as good. The agility component obtained an average score of 13.06 seconds with a good category. Meanwhile, the average aerobic endurance (VO2Max) score was 46.85 and categorized as moderate.

Arza Gustira[1A-E*], Adhe Saputra[2B-D], Yusradinafi[3B-D], Yonifia Anjanika[4B-D], Ely Yuliawan[5B-D]
arzaagustira99@gmail.com[1*]

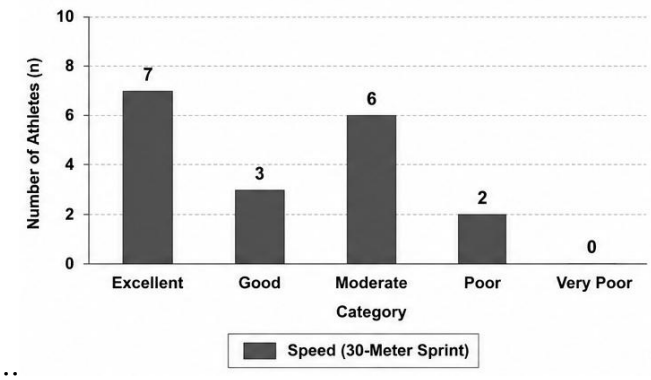

Figure 1.
Frequency Distribution of Speed Test Results of SSB Teratai Jambi Football Athletes

Based on Figure 1, the results of the speed test for SSB Teratai Jambi football athletes were dominated by the *excellent* category with a total of 7 athletes, followed by the *moderate* category with 6 athletes. Furthermore, the *good* category consisted of 3 athletes, while the *poor* category consisted of 2 athletes. No athletes were classified in the *very poor* category. These findings indicate that most athletes already possess relatively good speed ability to support football performance, particularly in short-distance sprint activities required during attacking and defensive situations. However, several athletes were still categorized as poor, indicating the need for more structured speed training programs to further improve the athletes' physical performance.

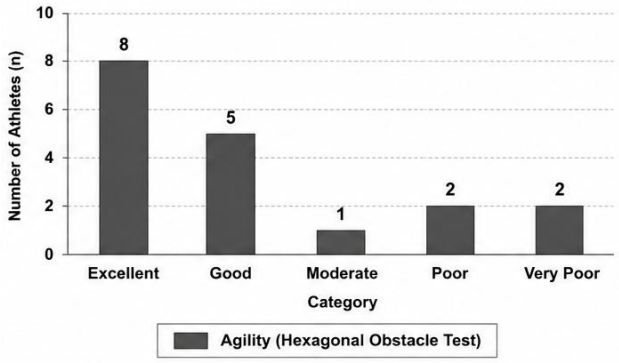

Figure 2.
Frequency Distribution of Agility Test Results of SSB Teratai Jambi Football Athletes

Based on Figure 2, the agility test results of SSB Teratai Jambi football athletes were dominated by the *excellent* category with a total of 8 athletes, followed by the *good* category with 5 athletes. Furthermore, 1 athlete was categorized as *moderate*, while the *poor* and *very poor* categories each consisted of 2 athletes. These findings indicate that most athletes already possess relatively good agility ability, particularly in changing direction quickly and maintaining body balance during football activities. Good agility is essential in football matches, especially during dribbling, avoiding opponents, and performing game transitions. However, several athletes were still classified in the poor and very poor categories, indicating the need for more structured agility training programs to further improve the athletes' movement performance.

Arza Gustira[1A-E*], Adhe Saputra[2B-D], Yusradinafi[3B-D], Yonifia Anjanika[4B-D], Ely Yuliawan[5B-D]
arzaagustira99@gmail.com[1*]

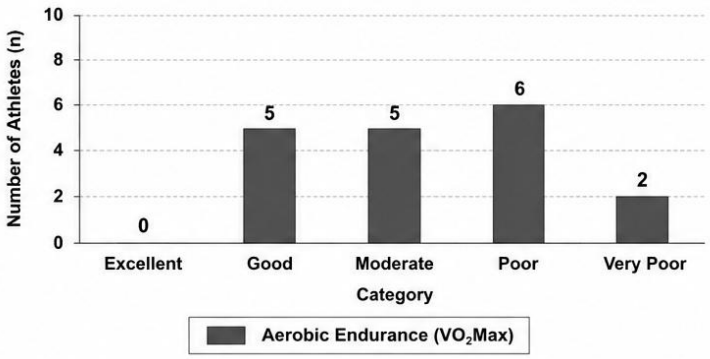

Figure 3.
Frequency Distribution of Aerobic Endurance (VO2Max) Test Results of SSB Teratai Jambi Football Athletes

Based on Figure 3, the aerobic endurance (VO2Max) test results of SSB Teratai Jambi football athletes were dominated by the *poor* category with a total of 6 athletes. Furthermore, the *good* and *moderate* categories each consisted of 5 athletes, while the *very poor* category consisted of 2 athletes, and no athletes were categorized as *excellent*. These findings indicate that the athletes' aerobic endurance ability is still not optimal and requires greater attention in the physical training process. Aerobic endurance is an important component in football because it is related to the players' ability to maintain game intensity throughout the match. Athletes with good aerobic endurance tend to perform more consistently without experiencing significant decreases in performance. Therefore, more structured and continuous endurance training programs are needed to improve the VO2Max ability of SSB Teratai Jambi football athletes.

Discussion

The results of the study showed that the speed component of the Teratai Jambi SSB football athletes was in good condition, with an average time of 4.08 seconds. Most athletes also ranked in the excellent and fair categories. These results indicate that the athletes' sprinting abilities were sufficient to support their football playing activities. Speed is a crucial physical component in football, as players are required to move quickly when attacking and defending. Good speed skills can help players win ball duels and create opportunities in matches (Pramono, 2015). In addition, speed is also related to the player's acceleration ability when changing positions on the field (Darma & Fernando, 2026).

The agility skills of SSB Teratai Jambi football athletes are also in the good category with an average of 13.06 seconds. Most athletes are in the very good and good categories. These results indicate that athletes have quite good movement direction change abilities in football games. Agility is a person's ability to change direction quickly without losing body balance (Sutiyoso et al., 2025). In football games, agility is very necessary when players are dribbling, avoiding opponents, or making game transitions. Athletes with good levels of agility tend to be easier to control body movements during the game (Wardani & Irawadi, 2020).

Regarding the aerobic endurance component (VO2Max), the study results showed that most athletes were in the poor category with an average of 46.85. Furthermore, there were no athletes in the excellent category. These results indicate that athletes' aerobic endurance is still suboptimal and needs to be improved through more structured training. Aerobic endurance plays a crucial role in maintaining stable athlete performance during matches. Athletes with good VO2Max are able to maintain game intensity for long durations without experiencing a significant decline in performance (Adelina & Anam, 2023). Aerobic endurance is also related to the ability to recover energy during physical activity (Arridho et al., 2021).

The results of this study are in line with the research of Bakhtiar et al., (2026) which shows that the physical condition of young football athletes still requires improvement, especially in the aerobic endurance component. Other research also explains that a planned physical training program can gradually improve the biomotor abilities of football athletes (Putra et al., 2023). Therefore, coaches need to provide a continuous endurance training program through interval training, circuit training, and small-sided games to improve athletes' VO2Max abilities (David Mahendra, 2022).

Overall, the physical condition of SSB Teratai Jambi football athletes is in the fairly good category, especially in the speed and agility components. However, the aerobic endurance component still needs more attention in the physical training process. Periodic physical condition evaluations are very important so that coaches can monitor the development of athletes' abilities and develop training programs that suit the players' needs (Ridwan, 2020). With good physical condition, athletes are expected to be able to demonstrate more optimal game performance and improve achievements in various football competitions.

CONCLUSION

Based on the research results, it can be concluded that the green economy-based sports park development intervention has had a significant positive impact on community social and environmental behavior. This is demonstrated by increases in public open space utilization, community participation, green economic activities, and environmental awareness following the intervention. These findings indicate that public space management integrated with green economy principles and based on community participation can create more active, productive, and sustainable behavioral changes.

Therefore, the green economy-based sports park intervention model can be used as an alternative strategy for developing public open spaces that are not only oriented towards recreational functions but also serve as a means of social and economic empowerment for the community. This research also provides practical implications for policymakers in designing sustainable community-based development programs and opens opportunities for further research using a broader and more varied experimental approach.

REFERENCES

Adelina, I., & Anam, K. (2023). Analisis daya tahan aerobik dan kelincahan siswa akademi sepakbola: Tinjauan berdasarkan posisi bermain. Journal of SPORT (Sport, Physical Education, Organization, Recreation, and Training), 7(3), 593–606.

Arridho, I. Q., Padli, P., Arwandi, J., & Yenes, R. (2021). Kondisi fisik pemain sepak bola. Jurnal Patriot, 3(4), 340–350.

Bakhtiar, I., Atradinal, A., Wahyuri, A. S., & Adha, O. W. P. (2026). Tinjauan Kondisi Fisik Siswa Sekolah Sepak Bola Surau Gadang Kota Padang. Jurnal JPDO, 9(2), 834–843.

Darma, I. Z., & Fernando, R. (2026). Kontribusi kelincahan dan kecepatan terhadap kemampuan dribbling sepakbola: Studi korelasi pada siswa ekstrakurikuler. Asian Journal of Sport Research and Review, 1(1), 1–6.

DAVID MAHENDRA, P. (2022). ANALISIS KOMPONEN BIOMOTOR PADA ATLET SEPAK BOLA USIA 13-14 TAHUN DI SSB SINGOPRONO SIMO TAHUN 2022. Universitas Tunas Pembangunan.

Muharram, N. A. (2016). Evaluasi Program Latihan Fisik Sepakbola Menggunakan Metode CIPP. Efektor, 3(1).

MUKHLISA, Y. A. Y. U., & FARUK, M. (2022). Analisis Tingkat Kebugaran Jasmani Sekolah Sepakbola Tora Fc U-17 Putra Di Kabupaten Sidoarjo. Jurnal Prestasi Olahraga, 5(6), 7–13.

Pramono, S. A. (2015). Hubungan Kecepatan, Kelincahan, Dan Berat Badan Dengan Keterampilan Bermain Sepakbola Siswa Ssb Satria Pandawa Klaten Usia 14-15 Tahun. Jurnal Patriot, 3(49–58).

Putra, S., Emral , E., Arsil, A., & Sin, T. H. (2023). Konsep model latihan fisik pada sepakbola. Jurnal EDUCATIO: Jurnal Pendidikan Indonesia, 9(2), 974. https://doi.org/10.29210/1202323429

Ridwan, M. (2020). Kondisi Fisik Pemain Sekolah Sepakbola (SSB) Kota Padang: Kondisi Fisik Pemain Sekolah Sepakbola (SSB) Kota Padang. Jurnal Performa Olahraga, 5(1), 65–72.

Sutiyoso, M., Munar, H., & Prabowo, B. Y. (2025). ANALISIS KONDISI FISIK PEMAIN SEPAK BOLA USIA 15 TAHUN DI SSB BOCAH JUNIOR TANJUNG JABUNG BARAT. Jurnal Riset Multidisiplin Edukasi, 2(10), 119–131.

Wardani, A. S. P., & Irawadi, H. (2020). Perbedaan Pengaruh Latihan Kelincahan Shuttle Run Dengan Latihan Lateral Run Terhadap Kemampuan Menggiring Bola Siswa U-14 Ssb Putra Wijaya Fc Padang. Jurnal Patriot, 2(1), 62–72.

Yustika, G. P. (2018). Fisiologi dalam permainan sepakbola profesional: Studi Literatur. Jurnal Pendidikan Olah Raga, 7(1), 22–39.