



PERCEPTIONS OF ATHLETES AT THE EAST JAVA PETANQUE PROVINCIAL TRAINING CENTER REGARDING PHYSICAL TRAINING

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Abstract

Physical training is a fundamental component in athlete development for petanque, as it determines the arm strength, balance, concentration, and endurance required for shooting and pointing techniques. This study aims to describe the perception of athletes at the Regional Education and Training Center (Puslatda) for Petanque of East Java toward the physical training program they undergo. The study employed a quantitative descriptive approach using a survey technique with a Likert-scale questionnaire. The population consisted of all Puslatda Petanque East Java athletes, with a total sampling technique involving 20 athletes. Data were analyzed using descriptive percentage-based statistics and categorized into five levels of perception. The results indicate that athletes' overall perception of physical training falls into the very positive category, with a mean score of 82.0%. The training method and variation indicator obtained the highest percentage (84.1%), while the coach's role indicator obtained the lowest percentage (80.3%), although both remained within the positive to very positive range. These findings suggest that Puslatda Petanque East Java athletes generally perceive their physical training program positively, and are expected to serve as evaluation material for coaches and petanque sport administrators in East Java, particularly in strengthening coach-athlete communication and feedback.

Keywords: Athlete Perception, Physical Training, Petanque, Puslatda, East Java

INTRODUCTION

Petanque is a precision sport that is rapidly growing in Indonesia and has been featured in national multi-sport events, including the National Sport Week (PON). This sport requires mastery of two basic techniques: pointing and shooting, both of which heavily depend on the athletes' physical condition, such as upper-body strength and endurance, body balance, core stability, and concentration (Pelana et al., 2021; Solihin et al., 2022). Physical condition is a crucial factor in supporting athletes' optimal performance. Several studies indicate that structured physical training programs tailored to the specific needs of a sport contribute significantly to improving technical accuracy, including in petanque (Phytanza et al., 2022; Rasyono & Yanto, 2024). Furthermore, the contemporary conceptual framework for physical training emphasizes the importance of tailoring training load, methods, and exercise variations to the specific characteristics of a sport to achieve training objectives effectively (Jeffries et al., 2021).

On the other hand, the success of a training program is determined not only by the quality of the program design itself but also by how athletes perceive and interpret the training they undergo. Athletes' perceptions of the training program also influence their level of acceptance, motivation, and commitment to the training process (Irawan et al., 2022; Noer et al., 2023). Athletes who have a positive perception of physical training tend to adhere to the training program designed by the coach.

The East Java Petanque Regional Training and Education Center (Puslatda) serves as a platform for developing promising athletes who are prepared for various competitions, both at the regional and national levels. As a long-term development program, the effectiveness of the physical training

implemented needs to be evaluated periodically, including through a study of athletes' perceptions as the primary participants. The perceptions of petanque athletes within the Puslatda regarding physical training remain limited; therefore, this study is expected to fill this gap.

Based on the above description, this study aims to describe the perceptions of athletes at the East Java Petanque Regional Training Center regarding the physical training they undergo, as assessed through ten indicators, including upper-body strength and endurance, balance and core stability, concentration, general physical endurance, training methods and variations, training frequency and performance. The results of this study are expected to serve as input for coaches and petanque sports administrators in evaluating and refining future physical training programs.

LITERATURE REVIEW

The Nature of Athlete Perception

Perception is an individual's process of interpreting and assigning meaning to an object or experience based on information received through the senses. In the context of sport, athletes' perceptions of training programs reflect how they assess the appropriateness, benefit, and effectiveness of the training they undergo. Studies on athlete perception have been conducted across various sports, such as athletes' perceptions of receiving sport massage (Noer et al., 2023) and students' perceptions of the sport of petanque itself (Irawan et al., 2022), both of which indicate that positive perceptions correlate with higher levels of acceptance and participation.

Physical Training in Petanque

Physical training in petanque is designed to support two main techniques: pointing (placing the bosi as close as possible to the boka) and shooting (hitting the opponent's bosi). A review indicates that upper-body strength and endurance, arm length, and self-confidence contribute to shooting accuracy (Pelana et al., 2021), while balance and concentration training influence athletes' shooting performance (Solihin et al., 2022). Strength training using resistance bands has also been shown to improve the accuracy of iron ball throws in petanque athletes (Rasyono & Yanto, 2024), and a structured accuracy training program can improve the shooting performance of athletes aged 15-20 years (Phytanza et al., 2022). Concentration and mental calmness immediately before throwing (the “quiet eye”) are also key determinants of performance outcomes (Selva et al., 2023), consistent with findings that training methods and in-game concentration influence athletes' shooting accuracy (Irham et al., 2022).

In general, the conceptual framework of contemporary physical training emphasizes that training programs must be individually tailored, measurable, and adaptive to athletes' responses (Jeffries et al., 2021). The use of training program monitoring technologies, such as Android-based

applications, is also beginning to be studied as a means to support the implementation of more systematic petanque training programs (Hidayah *et al.*, 2024).

Theoretical Framework

Based on the theoretical review above, athletes' perceptions of physical training in this study are broken down into ten interrelated indicators, namely: upper-body strength and endurance, balance and core stability, concentration and focus, general physical endurance, training methods and variations, training frequency and intensity, the coach's role, facilities and equipment, mental readiness, and perceptions of the impact of training on performance. These ten indicators form the basis for the development of the research instrument in the methods section.

METHOD

Type and Design of the Study

This study employs a quantitative approach using descriptive methods through a survey technique. This approach was chosen because it aims to capture and describe athletes' perceptions as they are, without applying any specific treatment.

Time and Location of the Study

The study was conducted at the East Java Petanque Regional Training Center (Puslatda). Data collection took place in 2025 by distributing questionnaires directly to athletes during breaks in training sessions.

Populations and Sample

The population in this study consisted of all 20 athletes at the East Java Petanque Training Center (Puslatda). Total sampling (saturation sampling) was used, meaning the entire population was included in the study, given the relatively small size of the population. Respondents were assigned codes ranging from ATHLET-01 to ATHLET-20 to maintain confidentiality.

Operational Definitions of Variables

Athletes' perceptions of physical training in this study are defined as the subjective assessments and responses of athletes at the East Java Petanque Training Center regarding the physical training programs they undergo, as measured through a questionnaire based on ten indicators as outlined in the literature review.

Research Instrument

The Instrument used was a closed-ended questionnaire with a four-point Likert scale consisting of the following response options: Strongly Agree (SS), Agree (S), Disagree (TS), and Strongly

Disagree (STS), with scores ranging from 4 to 1 for positive statements. The use of a four-point scale (without a neutral option) was intended to encourage respondents to express more definitive attitudes. The instrument matrix is presented in Table 1.

Table 1. Research Instrument Matrix

No	Indikator Persepsi	Sub-Indikator	No. Butir	Jml
1	Arm Strength & Endurance Training	Arm strength for shooting; muscle endurance during repeated pointing	1-4	4
2	Balance & Core Stability Exercises	Balance while squatting/standing; body stability while throwing	5-8	4
3	Concentration & Focus Exercises	Focus while aiming at a target; composite ("quiet eye")before throwing	9-12	4
4	General Physical Endurance Training	Stamina during long training sessions or matches	13-15	3
5	Training Methods & Variations	Variations in physical training; suitability of methods for petanque	16-19	4
6	Training Frequency & Intensity	Adequacy of the training schedule; suitability of training load	20-22	3
7	The Coach's Role in the Physical Training Program	Clarity of instructions; coach feedback; progress monitoring	23-26	4
8	Supporting Facilities & Equipment	Availability of physical training equipment; condition of the training facility	27-29	3
9	Mental/Phychological Readiness for Physical Training	Self-confidence; readiness to handle the pressure of competition	30-32	3
10	Perception of the Impact of Physical Training on Performance	Effects on shooting/pointing accuracy and match results	33-35	3

Before use, the Instrument was first validated through expert judgment by sport coaching experts and pilot-tested on a group of athletes outside the research sample to determine item validity (product-moment correlation) and instrument reliability using Cronbach's alpha, with the criterion that the Instrument is considered reliable if the alpha coefficient is > 0,60 (Noer et al., 2023).

Appendix 1. Research Questionnaire Items

Instructions for completion: Place a check mark (√) in the column that corresponds to your perception. Legend: SS = Strongly Agree, TS= Disagree, STS= Strongly.

Table 2. Categorization of Perception Levels

No	Statement	SS	S	TS	STS
1	I feel that the arm strength training provided by the coach helps improve my power when shooting.				
2	The arm endurance exercises I have been doing feel sufficient to support repeated pointing during a game.				
3	The arm-strengthening program is tailored to my specific petanque technique needs.				
4	I have noticed an increase in my arm strength after following the ongoing physical training program.				
5	The balance exercises provided have helped me maintain better stability				

No	Statement	SS	S	TS	STS
	whether I am in a crouching or standing position when throwing.				
6	The core stability exercises I have been doing feel relevant to the motion of throwing a bosi.				
7	I feel more balanced when doing pointing exercises after following the prescribed physical training program.				
8	The body stability exercises provided by the coach are well-suited to the movement characteristics of the sport of petanque.				
9	The concentration exercises provided help me focus better when aiming at the target.				
10	I feel calmer (quiet eye) before throwing after participating in the structured focus training.				
11	The concentration training sessions I have been doing have helped reduce distractions during competitions.				
12	I have noticed the benefits of focus training on my shooting accuracy.				
13	The general physical endurance training I do helps me stay in shape throughout the game.				
14	My stamina has improved after following the physical training program I have been doing.				
15	I do not get tired easily during a series of matches thanks to the physical training I have received.				
16	The variety of physical exercises provided by the coach keeps me from getting bored with training.				
17	The training methods used are tailored to the specific needs of the sport of petanque.				
18	I feel that the training provided offers a good balance between general physical training and petanque-specific physical training.				
19	The training methods implemented by the coach were easy for me to understand and follow.				
20	The frequency of the scheduled physical training is sufficient to support my performance.				
21	The intensity of the physical training provided is appropriate for my current ability and physical condition.				
22	I feel that the rest time between training sessions is appropriate.				
23	The trainer provides clear and easy-to-understand instructions for the physical exercises.				
24	The coach provides regular feedback on my physical progress.				
25	The coach monitors my physical progress regularly.				
26	I feel that the coach understands the specific physical training needs of petanque athletes.				
27	The physical training equipment (mats, weights, resistance bands, etc.) available is adequate.				
28	The training venue/field supports the implementation of the physical training program well.				
29	The physical training support facilities at the Regional Training Center meet my needs as an athlete.				
30	I feel more confident going into competitions after completing a structured physical training program.				
31	The physical training I have undergone helps me stay mentally prepared to handle the pressure of competition.				
32	I feel more psychologically prepared after regularly following a structured physical training program.				
33	I believe the physical training I do is relevant to my efforts to improve my				

No	Statement	SS	S	TS	STS
	shooting accuracy.				
34	I believe the physical training I have been doing is relevant to my efforts to improve my pointing accuracy.				
35	Overall, I perceive that the prescribed physical training has a positive impact on my performance on the field.				

Data Analysis Techniques

The collected data was analyzed using percentage-based descriptive statistics. The score for each indicator was calculated using the following formula:

$$P = (\text{Actual Score} / \text{Ideal Score}) \times 100\%$$

The resulting percentages were then categorized into five perception levels, as presented in Table 3.

Table 3. Categorization of Perception Levels

Score Range (%)	Perception Category
81% - 100%	Very Positive
61% - 80%	Positive
41% - 60%	Somewhat Positive
21% - 40%	Less Positive
0% - 20%	Not Positive

RESEARCH RESULTS AND DISCUSSION

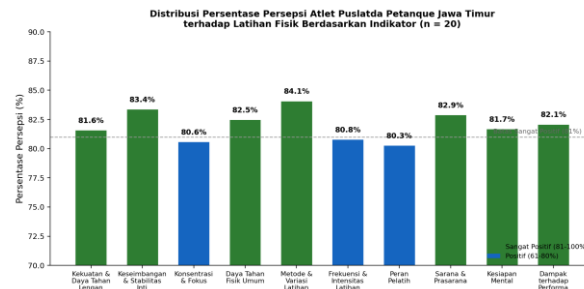
The study involved 20 athletes from the East Java Petanque Regional Center (Puslatda) as respondents, selected using total sampling. Based on the results of questionnaire data analysis of 35 statements divided into 10 indicators, an overview of the athletes' perceptions of physical training was obtained, as presented in Table 4.

Table 4. Athletes' Perceptions by Indicator (n = 20)

No	Indicator	Actual Score	Ideal Score	Percentage (%)	Category
1	Aem Muscle Strength & Endurance	261	320	81,6	Very Positive
2	Core Balance & Stability	267	320	83,4	Very Positive
3	Concentration & Focus	258	320	80,6	Positive
4	General Physical Endurance	198	240	82,5	Very Positive
5	Exercise Methods & Variations	269	320	84,1	Very Positive
6	Exercise Frequency & Intensity	194	240	80,8	Positive
7	Coach's Role	257	320	80,3	Positive
8	Facilities & Infrastructure	199	240	82,9	Very Positive
9	Mental/Phychological Readiness	196	240	81,7	Very Positive
10	Impact on Performance	197	240	82,1	Very Positive

Overall Average	2296	2800	82,0	Very Positive
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The data in table 3 show that of the 10 indicators measured, 8 indicators fell into the very positive category (range 81.6%-84.1%) and 2 indicators fell into the positive category (range 80.3%-80.8%). No indicators were found to fall into the somewhat positive, less positive, or negative categories. The percentage distribution of athletes' perception by indicator is presented in Figure 1.



Gambar 1. Diagram of the Percentage Distribution of Perceptions Among Athletes at the East Java Petanque Training Center by Indicator

Overall, the average percentage of athletes' perceptions regarding physical training was 82.0% and fell into the "very positive" category. The "training methods and variety" indicator was 83.4%. Meanwhile, the "coach's role in the physical training program" indicator received the lowest percentage at 80.3%, followed by the "training frequency and intensity" indicator at 80.8%. Although these were the indicators with the lowest scores, both remained in the "positive" category rather than the "negative" category.

A more detailed analysis at the item level revealed that the results within a single indicator were not always consistent. For the indicator of arm muscle strength and endurance, for example, the item regarding increased power during shooting recorded the highest percentage (85.0%). In contrast, the other three items concerning endurance during repeated pointing and the appropriateness of the arm-strengthening program remained in the range of 80.0%-81.2%. A generally identical pattern emerged for the core balance and stability indicator, where the item regarding stability in both the squatting and standing positions scored significantly higher (86.2%) compared to the other three items, which were consistent at 82.5%. A different pattern was observed for the concentration and focus indicator; the item regarding the role of concentration exercises in aiding focus when aiming at a target had the lowest score across the entire research instrument (76.2%). In contrast, the other three items under the same indicator covering compusure before throwing, reduction of distractions during competition, and the benefits of focus on shooting accuracy ranged from 81.2% to 82.5% The most striking disparity between items was found in the facilities and infrastucture indicator, where the item on the availability of supporting equipment reached 88.8%, but the item on the overall suitability of the mental readiness indicator, with the item on self-confidence in handling match pressure reaching 86.2% compared to the item on general phycological readiness, which lagged at 73.8%. Such variations confirm that

athletes' positive perceptions are not always consistent across every aspect that makes up a single indicator, even though, in aggregate, the indicator remains in the positive to very positive range.

In addition to being examined by indicator, this variation can also be seen in each athlete's total questionnaire score. Among the 20 respondents, total scores ranged from 102 to 123 out of a maximum score of 140, with a mean of 114.8 and a standard deviation of 4.7, a relatively narrow range indicating a fairly high degree of consistency in perceptions among the athletes. If each athlete's total score is converted to a percentage and categorized using the same criteria as in Table 2, 13 out of 20 athletes (65%) fall into the "very positive" category, while the remaining 7 athletes (35%) fall into the "positive" category; not a single athlete falls into the "moderately positive" category or below. One athlete achieved the highest score with a percentage of 87.9%, while the lowest score was recorded at 72.9%; both results remain consistent with the general conclusion that no tendency toward negative perceptions was found in this study. The consistency of these results at the individual level reinforced the belief that positive perceptions of physical training are not merely a group average but a relatively uniform pattern among athletes at the East Java Petanque Regional Training Center.

Discussion

The results of the study show that the perceptions of athletes at the East Java Petanque Training Center toward physical training are generally in the "very positive" category (82.0%). This finding indicates that the physical training program implemented by the coach has generally been accepted and viewed positively by the athletes, consistent with the view that positive perceptions of a training program contribute to athletes' levels of acceptance and motivation in undergoing the training process (Noer et al., 2023; Irawan et al., 2022).

The indicator for training methods and variations received the highest percentage (84.1%), indicating that athletes assessed the variety of training forms provided by the coach as appropriate for the specific needs of the sport of petanque. This finding aligns with the conceptual framework of contemporary physical training, which emphasizes tailoring training methods and variations to a sport's characteristics to achieve training objectives effectively (Jeffries et al., 2021). The indicators for balance and core stability also received high scores (83.4%), supporting the findings of Solihin et al. (2022) that balance training contributes to petanque athletes' shooting performance, as well as the indicators of upper-body strength and endurance (81.6%), which align with the research by Pelana et al. (2021) and Rasyono & Yanto (2024) regarding the role of upper-body strength in shooting accuracy.

On the other hand, the indicator for the coach's role received the lowest percentage (80,3%). Although it remains in the positive category, this finding serves as an evaluative note that aspects such as communication, clarity of instructions, and the coach's feedback on athletes' physical development have room for further improvement. This is important given that coaching monitoring and feedback

are integral to implementing a training program that is measurable and adaptive to athletes' responses (Jeffries et al., 2021), and can be supported by the use of training monitoring technology as reviewed in (Hidayah *et al.*, 2024). The training frequency and intensity indicators, which also ranked second lowest (80.8%), indicate the need to evaluate the adequacy of the schedule and the appropriateness of the training load as perceived by the athletes.

The concentration and focus indicator scored 80,6%, slightly lower than the other physical indicators. Given that concentration and mental calmness immediately before throwing (the “quiet eye”) are key determinants of petanque performance (Selva et al., 2023; Irham et al., 2022), this score may serve as a consideration for coaches to strengthen the mental training and focus components in future training programs, while acknowledging that current achievements are already in the positive category. Overall, no indicators were found to fall into the negative category (somewhat positive, less positive, or not positive), suggesting that the physical training program at the East Java Petanque Regional Training Center has been running well according to the athletes' perceptions. However, there is still room for improvement, particularly regarding the role of coaches and the scheduling of training frequency and intensity.

CONCLUSIONS

Based on the results and discussion, it can be concluded that the perceptions of athletes at the East Java Petanque Training Center regarding physical training are generally in the “very positive” category, with an average score of 82.0%. The indicators of training methods and variety were the main strengths of the current training program (84,1%). In comparison, the indicator of the coach's role in the physical training program was an aspect requiring further improvement (80,3%), although all indicators remained in the positive to very positive categories.

For coaches, it is recommended to improve the quality of communication, the clarity of instructions, and the frequency of feedback regarding athletes' physical development, given that the indicator regarding the coach's role received the lowest score compared to the other indicators. For the East Java petanque sports association, it is recommended to reevaluate the frequency and intensity of training to ensure they are more proportionate to the athletes' physical condition. For future researchers, it is recommended to conduct studies using a mixed-methods approach or involving a broader population to gain a deeper understanding of the factors influencing athletes' perceptions of physical training.

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