



# Analysis of Motivation, Physical Condition and Training Model of Petanque Sports Athletes: A Literature Review

Fitria Wulandari and Gatot Jariono<sup>(✉)</sup>

Faculty of Teacher Training and Education, Universitas Muhammadiyah Surakarta, Surakarta, Indonesia  
gj969@ums.ac.id

**Abstract.** The sport of Petanque game is one of the traditional sports originating from France which is a traditional game that was developed into the sport of achievement as it is today, in pursuit of peak achievements in the need for training motivation, excellent physical condition and the right training model. The purpose of this study is to find out how high the level of motivation to train athletes, the condition of athletes and training methods for petanque athletes. This research method includes surveys, qualifications, quantitative, and pseudo-research with the conclusion. The motivation to train athletes is very much needed as a form of self-encouragement to achieve peak achievements, motivation to practice biases obtained from oneself, parents, and the team itself. Likewise, physical conditions are very important in supporting the performance of athletes when competing and the training and coaching model provided by the coach will be very useful when competing.

**Keywords:** Motivation · Physical Condition · Exercise Model

## 1 Introduction

Sports is an activity that involves the movement of all or part of the body and mind to train the human body both for health and entertainment. Sports are divided into several groups based on their purpose, namely (1) Achievement Sports, used in championships, are contested. (2) Recreational Sports, used for fun. (3) Educational Sports, used in the learning curriculum. (4) Rehabilitation exercise, used to improve the state of one's body. (5) Health exercise, used for the achievement of body health [1].

Petanque is a sport that originated in France and anyone can play it. Petanque can be played by all ages from young to old, because in this sport it does not require difficult movements and requires a lot of energy [2]. Petanque is a form of boules game in which the goal of throwing iron balls (boules) as close as possible to a wooden ball called a jack and both feet must be in a small circle, there is also a special competition for shooting [3]. This sport really needs a very high accuracy. From various age groups from children to adults, there are 11 numbers that are competed, namely: shooting man shooting women,

single man, single women, double man, double women, double mix, triple man, triple women, triple mix one man two women and triple mix two man one women [4].

The goal of the petanque game is to achieve maximum accuracy meaning that to get the winning point the throw must be right hitting the opponent's boule trying to get close to the jack [5]. For petanque sports so far, there have been no factors that affect the most dominant performance that must be trained so that it will affect the accuracy of the throw [6]. In the quote [4].

In doing something or activity we should ourselves have the motivation or motivation to achieve a desire. Similarly, in carrying out sports activities, an athlete should have motivation in training and achieving. Motivation to achieve is a desire related to the achievement or achievement of optimal or best internal standards. A person who has high achievement motivation has the courage to take risks, can overcome obstacles, competes with high effort, and will be responsible [1].

In achieving a high sporting achievement will not be separated from a long process and cannot be achieved suddenly (instance) but there are many things that have an effect. For this reason, special attention is needed, one of which is the coaching of talented athletes applied in the regions [7].

Physical condition is the most important component in achieving achievements. Physical condition is an absolute must-have for athletes in developing and improving optimal sports performance, so that all their physical conditions must be developed and improved according to the characteristics and needs of each sport [8].

In addition to the physical condition of the athletes that really needs to be considered, there is also a training model that is very influential in performance as well as techniques and strategies for one of the capitals for athletes to excel. As well as coaching and guidance that can help athletes achieve to the top achievements.

The process of coaching and scouting talents is used for the preparation of long-term athletes. The above description indicates the importance of sports coaching from an early age. This means that a region/country basically has the opportunity to improve the achievements of sportsmen optimally if it can carry out the coaching and breeding process in a gradual, tiered and sustainable manner. Experience shows that only athletes who are talented and want to train well can achieve peak achievements. Peak achievement is the result of the entire effort of the coaching program over a period of time which is a combination of training processes that are designed systematically, tiered, continuous, repetitive and increasing [9].

## 2 Method

The research method used is literature review using google scholar data base with keywords motivation to train, physical condition of athletes, and training models. The analyzed articles were published from 2017 to 2021, using the following inclusion criteria: research articles, descriptive research survey methods, populations/samples/research subjects of petanque athletes.

### 3 Results and Discussion

Based on the results of the article review that has been carried out, it can be summarized as follows Table 1. Data from the review of 9 articles Motivation to practice petanque sports athletes.

Explanation of Table 1 can be described as follows:

- 1) Muhammad ainul hana, cahyo yuwono (2021) with google scholar sources with qualitative research methods with a descriptive approach in the form of writing, oral of people and observed behavior. With samples of X IPA 1, X IPA 3, X IPS 1, X IPS 2 from class X SMAN 1 Guntur, with the type of topic level of motivation with results From the results of the research, the motivation of class X Science 1 and X Science 3, X Ips 1 and X Ips 2 students towards Petanque sports at SMA Negeri 1 Guntur is to meet physiological needs such as fitness, health and endurance. In addition to meeting the needs of self-actualization and social needs such as brainstorming or discussing events to gain comfort or confidence in playing the sport of Petanque. As well as curiosity because the sport is fairly new [10].
- 2) Liliana Puspa Sari, Ibrahim Sembiring, Dicky Hendrawan, Rinaldi Aditya, Ratna Dewi (2020) source from goggle scholar with research method This research is a descriptive study using the survey method with a sample of female athletes in petanque sport North Sumatra totaling five athletes with a type of level of motivation with the results of the level of motivation for outstanding female athletes in the North Sumatra petanque sport during the Covid-19 pandemic which is included in the very high category of 40%, the high category of 20%, the medium category of 20%, and the low category of 20% [4].
- 3) Ati Safitri, Imroatul Maghfiroh, Ahmad Khafis, Gilang Nuari Panggraita (2021) with google scholar sources with research methods The method used in this study is a descriptive method with quantitative with samples petanque athletes pekalongan district with the number of samples sixteen athletes with a type of level of physical conditionals with research results of 56.25% of petanqu athletes in Pekalongan district have less physical fitness [11].
- 4) Tri Sutrisna, Moch Asmawi, Ramdan Pelana (2018) google scholar source with research method Research on the development of this petanque sports shooting training model using a research and development model with sample high school and vocational high school students in DKI Jakarta totaling thirty athletes with type of training model level with research results There is a comparison of numbers that shows that the results of the initial test and the final test have progressed, from the initial test which amounted to 356 then given treatment in the form of models - shooting exercise models that have been developed then only held final tests or post t tests to determine the effectiveness of the developed model and obtained data totaling 557, so this exercise model is effective for developing shooting exercises for novice athletes. 2. With the sports shooting training model petanque novice athletes can practice shooting in a way effectively and efficiently. 3. With the model of shooting exercises that researchers have developed, novice athletes can master shooting techniques precisely and correctly [12].
- 5) Muhammad Saifulamri Alkhusaini, Nurhidayat Nurhidayat (2021) google scholar source with research method the research used is quasi-experimental research with

**Table 1.** Characteristics and results of physical conditioning training methods for petanques

<b>Author, Year</b>	<b>Variable</b>	<b>Research methods</b>	<b>Result</b>
Cahyo Yuwono (2021)	Motivation	qualitative	Physiological needs such as fitness, health and endurance
Liliana Puspa Sari, Ibrahim Sembiring, Dicky Hendrawan, Rinaldi Aditya, Ratna Dewi (2020)	Motivation	Survey	Results of motivation levels of outstanding female athletes in the sport of petanque
Ati Safitri, Imroatul Maghfiroh, Ahmad Khafis, Gilang Nuari Panggraita (2021)	physical condition	Descriptive	The level of physical condition with the results of the study 56.25% of petanque athletes in Pekalongan district have less physical fitness
Tri Sutrisna, Moch Asmawi, Ramdan Saddle (2018)	Shooting practice	Development model	Beginner athletes can practice shooting in an effective and efficient way
Muhammad Saifulamri Alkhusaini, Nurhidayat Nurhidayat (2021)	Shooting practice	Quasi-experiment	There is a significant effect of shooting practice using obstacles on improving the ability of the petanque shooting game
Christin Mayangsari, Agus Supriyoko, Yudi Karisma Sari (2022)	Barrier-shaking shooting exercises	Quasi-experiment	model level with the results of the study Barrier-shaking shooting exercises are more effective than shooting exercises without barriers to increased shooting distances of 7 m
Muhammad Ali, Tomy Augustine (2021)	Shooting practice using used car tire media as a barrier	experiment	There is an increase in shooting games in petanque athletes using old car tires as a barrier

*(continued)*

**Table 1.** (continued)

<b>Author, Year</b>	<b>Variable</b>	<b>Research methods</b>	<b>Result</b>
Eko Cahyo,rendi, Nurkholis(2018)	Shooting practice	Descriptive	training model with results 1.The most ideal backswing angle carried out by 3 East Java athletes is 78o – 80o at a distance of 7 m
Muhammad Abdul Kharim Nurkholis (2018)	Shooting practice	Descriptive	Based on the results of the study, it was concluded that the back swing angle of 48°–69° is the ideal arm angle for pointing half lob squat at a distance of 7 m because with a large angle it provides ideal flexibility of movement space in pointing a distance of 7 m

samples Athletes petanque Universitas Muhammadiyah Surakarta totaling fifteen athletes with type of training model level with results Based on the results of data analysis calculations and hypothesis testing that has been carried out, there is a significant influence of shooting exercises using barriers on improving the shooting game ability of UMS petanque athletes. From the calculation results using statistical analysis paired samples t test showed that shooting exercises using barriers have a significance value of 0.000 0.05. This can be interpreted to mean that there is a significant influence when viewed from the number of pretest mean values of 6.27 and the posttest mean of 11.13 an increase of 4.86. It can be concluded that shooting exercises using barriers can improve the ability of shooting games in UMS petanque athletes compared to before being given training [13].

- 6) Christin Mayangsari, Agus Supriyoko, Yudi Karisma Sari (2022) google scholar source with research method This study is a quasi-experimental study, because the sample is not quarantined or not in the dormitory. With a sample of Sragen district athletes with the number of twenty athletes with the type of Training model level with the results of the study Barrier-shaking shooting exercises are more effective than shooting exercises without barriers to increased shooting distances of 7 m in Sragen Regency Petanque athletes. That is with a percentage increase in shooting using barriers of 60.7% > a percentage increase in shooting practice without barriers of 39.2% [14].
- 7) Muhammad Ali, Tomy Agustinus(2021) goggle scholar source with research methods The research method used in this study used an experimental method. With a sample of novice athletes totaling ten people with a type of training model level research

with results Based on anal isis data from the research results, it can be seen that there is an influence of shooting training using used car tire media as a barrier to increasing shooting game results in petanque athletes in Jambi City. The conclusion of the study stated, Then, the result of hypothesis data  $T \text{ Count } 14.365 > T \text{ Table } 1.833$  then accepted at a confidence level of 95%. Based on the t-test in hypothesis testing. It is also suggested that this research be used to improve the results of shootin g games in petanque athletes in Jambi City [15].

- 8) Eko Cahyo, rendi, Nurkholis (2018) goggle scholar source with research method This research uses a type of quantitative research with a descriptive approach with a sample East Java athletes totaling Three athletes with research type Training model level with results 1.The most ideal backswing angle carried out by the 3 East Java athletes is  $78^{\circ}$ – $80^{\circ}$  at a distance of 7 m. 4 2. The most ideal release angle carried out by the 3 East Java athletes is  $80^{\circ}$ – $82^{\circ}$  at a distance of 7 m. 3. The ideal swing speed carried out by the 3 East Java athletes is 3.66 m/s at a distance of 7 m. 4. The ideal maximum ball height is done by looking at the backswing angle, swing speed, ball release and to cover a distance of 7 m is 1.45–1.64 m [16].
- 9) Muhammad abdul kharim nurkholis (2018) source google scholler with this study method uses quantitative research methods with a descriptive approach. With a sample Unesa petanque club totaling Four athletes with a type of research Training model level with research results 1.Based on the results of the study, it was concluded that the back swing angle of  $48^{\circ}$ – $69^{\circ}$  is the ideal arm angle for pointing half lob squat at a distance of 7 m because with a large angle it provides ideal flexibility of movement space in pointing a distance of 7 m. The wiggle room in this case is the regulation of swing speed and force that will affect the timing of releasing the ball and the height of the ball. 2. Based on the results of the study, the release angle of  $66^{\circ}$ – $95^{\circ}$  is the ideal arm angle for pointing half lob squats at a distance of 7 m. The pointing results obtained are points 9–10 where the iron ball is located very close to the wooden ball. The size of the release angle will affect the tim [17].

All articles (9 articles) analyzed using survey, qualitative, quantative and pseudo-research methods with population/sample characteristics or research subjects altet petanque. The research instruments used include: motivation to train in petanque athletes as many as 2 articles. Physical condition as many as 2 articles. And for the model practice as many as 6 articles.

Topic 1 athlete training motivation; topic 2 physical condition of athletes; topic 3 athlete training model.

## 4 Conclusion

Based on the findings of the study, the conclusion is that the motivation to train athletes is very much needed as a form of self-encouragement to achieve peak achievements, training motivation can be obtained from oneself, parents, and the team itself. Likewise, physical conditions are very important in supporting the performance of athletes when competing and the training and coaching model provided by the coach will be very useful when competing.

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## References

1. I. & P. Sholihah, “KOMUNIKASI INTERPERSONAL PELATIH TERHADAP MOTIVASI BERPRESTASI ATLET Imroatus Sholihah,” *Kesehat. Dan Olahraga*, pp. 95–104, 2021.
2. M. Fatchurrahman, B. Saputra, A. Kristiyanto, and M. Doewes, “Analisis Manajemen Pengurus Provinsi Federasi Olahraga Petanque Indonesia (Fopi) Jawa Tengah Dalam Mendukung Prestasi Olahraga Indonesia,” *Pros. Semin. Nas. IPTEK Olahraga*, no. 3, pp. 1–6, 2019.
3. A. T. Agustina and A. Priambodo, “Hubungan Antara Tingkat Konsentrasi Terhadap Hasil Ketepatan Shooting Olahraga Petanque Pada Peserta Unesa Petanque Club,” *Pendidik. Olahraga dan Kesehat.*, vol. 5, no. 3, pp. 391–395, 2017.
4. L. P. Sari, I. Sembiring, D. Hendrawan, R. Aditya, and R. Dewi, “Tingkat Motivasi Berprestasi Atlet Putri Cabang Olahraga Petanque Sumatera Utara Dimasa Pandemi Covid 19,” *Sains Olahraga J. Ilm. Ilmu Keolahragaan*, vol. 4, no. 2, p. 93, 2022, <https://doi.org/10.24114/so.v4i2.19785>.
5. G. B. Laksana, H. Pramono, and S. B. Mukarromah, “Perspektif Olahraga Petanque dalam Mendukung Prestasi Olahraga Jawa Tengah,” *J. Phys. Educ. Sport. Univ. Negri Semarang*, vol. 6, no. 1, p. 8, 2017, [Online]. Available: <https://journal.unnes.ac.id/sju/index.php/jpes/article/view/17319/8743>
6. I. A. Amalia, “Aspek Perkembangan Motorik Dan Hubungannya Dengan Aspek Fisik Dan Intelektual Anak,” pp. 1–12.
7. F. Gunawan<sup>1</sup>, Ni Made Yeni Suranti<sup>2</sup> and IPhysics, “Gunawan<sup>1</sup>, Ni Made Yeni Suranti<sup>2</sup>, Fathoroni<sup>3</sup>,” vol. 1, no. 2, pp. 75–94, 2020.
8. A. Supriyoko and W. Mahardika, “Kondisi Fisik Atlet Anggar Kota Surakarta,” *J. Sport. J. Penelit. Pembelajaran*, vol. 4, no. 2, p. 280, 2018, [https://doi.org/10.29407/js\\_unpgrj.v4i2.12540](https://doi.org/10.29407/js_unpgrj.v4i2.12540).
9. U. H. Zhannisa and F. Sugiyanto, “Model Tes Fisik Pencarian Bakat Olahraga Bulutangkis Usia Di Bawah 11 Tahun Di Diy,” *J. Keolahragaan*, vol. 3, no. 1, pp. 117–126, 2015, <https://doi.org/10.21831/jk.v3i1.4974>.
10. Cahyo yuwono (2021) Muhammad ainul hana, “Indonesian Journal for,” *Journal.Unnes*, vol. 1, no. 1, pp. 188–196, 2020.
11. P. Jasmani, U. Muhammadiyah, P. Pekalongan, A. Petanque, and K. Pekalongan, “Volume 4 no I Tahun 2021 ISSN 2614-2775 ( Print ) ISSN 2621-8143 ( Online ) PROFIL KEBUGARAN JASMANI ATLET PETANQUE KABUPATEN PEKALONGAN PENDAHULUAN Kebugaran jasmani merupakan salah satu aspek penting yang harus dimiliki setiap siswa agar bisa mengikuti ,” vol. 4, no. I, pp. 126–137, 2021.
12. R. P. (2018) Tri Sutrisna, Moch Asmawi, “9202-Article Text-18394-1-10-20181119,” no. 2, pp. 46–53.

13. M. Saifulamri Alkhusaini and N. nurhidayat, “Keterampilan Shooting Pada Permainan Petanque,” *J. Porkes*, vol. 4, no. 2, pp. 69–75, 2021, <https://doi.org/10.29408/porkes.v4i2.3865>.
14. A. Petanque and K. Sragen, “1 , 2 , 3,” vol. 22, no. 1, pp. 41–50, 2022.
15. P. Latihan et al., “Jurnal cerdas sifa pendidikan,” vol. 7, pp. 9–18, 2018.
16. R. Eko Cahyono and Nurkholis, “Analisis Backswing Dan Release Shooting Carreau Jarak 7 Meter Olahraga Petanque Pada Atlet Jawa Timur,” *J. Prestasi Olahraga*, vol. 1, no. 1, pp. 1–5, 2018.
17. M. A. Kharim and Nurkholis, “Analisis Backswing dan Release Ketepatan Pointing Half Lob Jongkok pada Jarak 7 Meter Olahraga Petanque,” *Prestasi Olahraga*, vol. 1, no. 3, pp. 1–6, 2018, [Online]. Available: <https://jurnalmahasiswa.unesa.ac.id/index.php/jurnal-prestasi-olahraga/article/view/25392>

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