



## Pencak Silat as a Comprehensive Method of Mental, Physical, and Spiritual Growth: A Systematic Review

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### Abstract

**Objectives.** The study aimed to better understand physical performance by reviewing the literature on the role that Pencak Silat plays in developing elite athletes. The traditional Indonesian martial art Pencak Silat provides a comprehensive method encompassing mental, physical, and spiritual growth.

**Materials and methods.** The literature regarding Pencak Silat impact on the development of elite athletes was analysed using a PRISMA filter. This study used a systematic evaluation of pertinent literature to determine Pencak Silat impact on mental endurance, motor ability, and physical fitness. The preparation of Pencak Silat athletes for competition through physical conditioning was addressed in articles published between 2019 and 2024. Electronic searches were conducted through Web of Science, PubMed, and Scopus. Having reviewed the literature, all the works that discuss the development of elite athletes in Pencak Silat were compiled.

**Results.** This study's thorough literature review revealed that Pencak Silat contributes to enhancing the resilience, agility, flexibility, and strength of athletes' bodies. Furthermore, the Pencak Silat concept imparts the courage, discipline, and strategic thinking abilities that are necessary to become exceptional athletes. The results of this study also demonstrate Pencak Silat capacity to achieve a balance between mental and physical attributes, which is crucial for overcoming obstacles in both domestic and international competition. It is anticipated that the study's findings will contribute to a better understanding of Pencak Silat as an all-encompassing and excellent instrument for athlete development.

**Conclusions.** Pencak Silat is a method of self-development that helps athletes become exceptional in all spheres of their lives — physically, psychologically, and spiritually. It is not just a martial art. Pencak Silat, which emphasizes endurance, mental toughness, and strategy, is an effective instrument for attaining great performance in sports.

**Keywords:** systematic review, Pencak Silat, physical performance, superior athletes.

### Introduction

A martial art called Pencak Silat can be used for self-defence, competitive sports, character development, and other purposes (Guntoro et al., 2023; Nurhidayah et al., 2024; Rahayuni, Taufik, et al., 2023). This study's primary goal is to investigate how Pencak Silat develops elite athletes' physical stamina, motor abilities, and mental toughness. The PRISMA method (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) is a systematic methodology

to efficiently and transparently filter and evaluate scientific literature. It is used in this study to locate and analysed relevant literature.

A traditional martial art known as Pencak Silat originated in Indonesia and other Southeast Asian nations (Mardius et al., 2024; Setiadi et al., 2024). In addition to being a philosophically rich cultural legacy, Pencak Silat has evolved into a competitive sport with international recognition (Karo-Karo et al., 2023; Khotimah et al., 2023). Pencak Silat, one of the sports that can generate exceptional athletes, has grown in popularity since participating in the Asian and SEA Games (Ihsan et al., 2022; Muzakki et al., 2023). Pencak Silat emphasizes combat technical skills within the context

of modern sports, along with requiring a high level of physical fitness, motor skills, and mental toughness. Pencak Silat competitors need to be strong, have quick reactions, and be laser-focused. Additionally, Pencak Silat instils moral values that indirectly support the growth of strong character and integrity, such as self-control, discipline, and respect for the values of opponents.

Few studies thoroughly outline the effects of Pencak Silat on the development of exceptional athletes from many physical, motor, and mental aspects, despite the fact that several studies have been done to investigate the benefits of Pencak Silat in enhancing athletes' abilities. As a result, a more thorough and organized method of examining the body of current literature is required. To give a comprehensive picture of how Pencak Silat shapes elite athletes, the PRISMA approach is the ideal instrument for methodically sifting and analysing pertinent evidence.

Using the PRISMA method, this study seeks to demonstrate Pencak Silat's capacity to develop elite athletes (Haddaway et al., 2022). This study compiles and analyses the studies on Pencak Silat's impact on athletes' physical fitness, motor skills, and mental endurance. This study is anticipated to significantly advance scientific knowledge on how Pencak Silat may develop exceptional athletes for a variety of tournaments, both domestically and internationally, by employing the PRISMA approach.

## Materials and Methods

### Database and Search Profile

This systematic review includes electronic searches on PubMed, Scopus, and the Web of Science. Terms like "motor skills", "mental resilience", "physical fitness", and "Pencak Silat" are mixed in electronic searches. The search approach's four parts are divided. 450 papers about Pencak Silat and sports were discovered overall using the PRISMA Process during the first identification phase of electronic searches carried out through PubMed, Scopus, and the Web of Science. After removing duplicates, there may still be up to 320 articles. These articles then undergo screening, which is a second stage of filtering in which 170 of the 320 articles are selected based on their abstract and title. After carefully evaluating the methodology and research findings, only 120 articles are relevant to the topic; the remaining 65 meet the eligibility criteria. During the fourth phase, known as inclusion, the final review contained up to thirty articles that met the notability requirements using the PEDro scale, which is available online for free. These articles have been translated into seven languages in Figure 1.

Out of 450 publications that adhered to the PRISMA requirements, 30 articles were chosen in total during the identification, screening, conformity, and inclusion phases (Page et al., 2021). The flow chart (Figure 1) shows this procedure. The bibliometric analysis considered the following variables: the following five variables determine the yearly trend of papers produced between 2019-2024: The first author's institution's publication distribution, the total number of authors, the type of research (different, experimental, descriptive, or correlational), the average number of citations per article, and the field of study (motor skills, mental resilience, physical fitness, Pencak Silat, other,

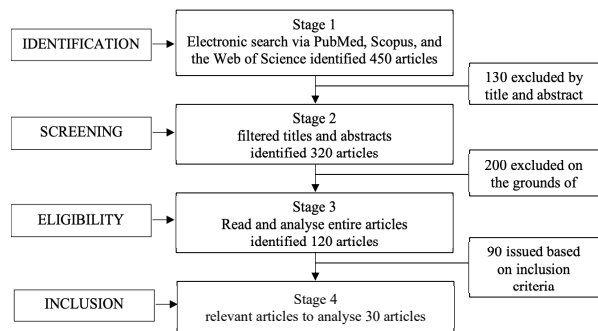


Fig. 1. An illustration of the flow of the search process

or mixed) are all taken into consideration. Table 1 displays the general inclusion and exclusion criteria.

Table 1. Superior athletes are formed by a Pencak Silat's inclusion and exclusion standards

Inclusion Criteria	Exclusive Criteria
The 2019–2024 study, which looked at how Pencak Silat affected athletes' physical fitness, motor abilities, or mental endurance, was published	The study were studies that did not address Pencak Silat or that did not look at different facets of athletes' physical and mental conditioning
Population	Pencak Silat athletes
Intervention	Core training lasting at least four weeks
Comparison	More than two groups
Results	Performa condition athlete elite
Design of research	Physical fitness, motor skills, or mental resilience

A thorough explanation of each inclusion criterion, including population, comparison, study methodology, intervention, and results, is given in Table 1. The study's primary objective was to ascertain how Pencak Silat enhances athletes' physical performance. If the literature satisfies the following criteria, it will be incorporated into the study.

1. Population: Pencak Silat athletes with a range of physical performance levels make up the test subjects. Pencak Silat athletes' range in physical performance from novices to school levels, province levels, and national levels. Their physical performance is classified into three categories: physical fitness, motor skills, and mental endurance.
2. Intervention: Studies have demonstrated that athletes' performance is not considerably enhanced by training periods less than four weeks (Yulanda & Jariono, 2023; Burhanuddin et al., 2023). Therefore, the intervention entails conducting physical fitness, motor skills, or mental endurance experiments for longer than four weeks.
3. Comparison: A minimum of two groups were involved, and as a baseline for comparison, the groups for physical fitness, motor skills, and mental endurance were compared with other training or with no training (Usra et al., 2024; Wahyuni et al., 2024).

4. Results: The primary focus of the results is the athletes from Pencak Silat and their performance. The study mainly focuses on elements of Pencak Silat performance characteristics, such as mental endurance, motor skills, and physical fitness. The following is the definition of skill performance. Pencak Silat athletes are categorized into numerous skill sets based on their abilities, including physical, mental, technical, and tactical talents. Performance indicators of elite Pencak Silat athletes: (1) physical performance: strength, speed, endurance, agility, flexibility, and body composition (Gusciglio & Morin, 2023; Kudryavtsev et al., 2023; Lubis et al., 2022; Teo et al., 2022); (2) mental performance: concentration, motivation, confidence, emotional control, and mental flexibility; (3) Technique performance: movement quality, movement variation, coordination, strength of moves, and use of force (Carvalho et al., 2023; Cid-Calfucura et al., 2023; Folhes et al., 2023; Niewczas et al., 2023); and (4) tactical performance: opponent analysis, decision-making, tactical adjustment, use of distance, use of time (Anastasiou et al., 2024; Martínez-Aranda et al., 2023; Rydzik et al., 2024). However, some of the elements of Pencak Silat's physical performance include agility, flexibility, stability, power, speed, coordination, strength, and balance.
5. Research design: The randomized controlled trials are examined in this review.

### Methodological evaluation of quality

The quality of the papers under examination was assessed using eleven PEDros (Physiotherapy Evidence Database) criteria, and their methodological quality was also evaluated. Excellent articles assist readers in overcoming obstacles like time constraints and inadequate critical thinking abilities and make it simpler for them to incorporate high-quality clinical research into clinical practice. According to Moseley, articles with a methodological quality score of eight to eleven are deemed to have high quality, those with a score of four to seven are considered average, and those with a score of four or lower are not examined. Clinical practice guidelines and systematic reviews are not evaluated (Moseley et al., 2020).

## Results

### Number of Results Reviewed

Electronic searches of PubMed, Scopus, and the Web of Science are conducted using the PRISMA Process. The figure below displays the total number of publications for the chosen period as well as the publishing year. These studies examine how Pencak Silat practices affect physical fitness, mental toughness, and motor skills (Table 2).

Figure 2 illustrates how the quantity of publications has changed across various time periods. First, from 2019 (17 articles), 2020 (32 articles), 2021 (61 articles), 2022 (85 articles), 2023 (100 articles), and 2024 (155 articles), there has been a discernible increase in the amount of research produced. The table above illustrates how biomechanical analysis, which is applicable to Pencak Silat techniques, is

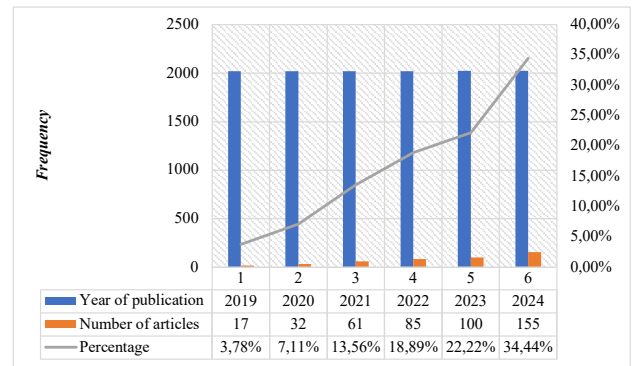


Fig. 2. An increase in the annual number of publications

described in the literature. There are thirty studies in this review. Both art trends and research pertaining to fighting tactics are included. Physical performance, exercise programs, motor skills, physical fitness, and mental stamina.

### Exercise Significance Results

Regardless of gender, age, professional level, rookie or expert athletes, or training style, the 30 research that were selected and examined indicated a significant benefit of Pencak Silat training on mental endurance, motor ability, and physical fitness.

Table 2 demonstrates how 30 authors used a random method to enhance the physical attributes of each sport, as well as an overview of the sports examined to guarantee the randomness of each research variable to contribute to the study's findings. The authors used experimental research approaches, surveys, literature reviews, and related research. The population's characteristics were the main topic of discussion in a literature review that examined thirty prior research. The population is typically made up of people of different ages, genders, and skill levels who are sports, students, or those with certain medical concerns. Establishing the demographic is crucial for maintaining consistency in the results analysis and the research's applicability to the intended audience.

In terms of study design, the internal validity and methodological quality of the intervention study are frequently evaluated through the use of the PEDro scale, a research quality assessment tool. This scale evaluates a number of factors, including control, blinding of participants and researchers, and randomization. The majority of the thirty studies that were analysed used experimental and quasi-experimental designs, and the range of PEDro scores (5–10) was considered moderate to high. In the context of the larger body of literature, a study with a high PEDro score is thought to have a robust methodology, good control, and little chance of bias, which increases the validity and reliability of the findings. The features of the research examined in the review and meta-analysis are outlined in Table 3.

## Discussion

The study's findings demonstrate that Pencak Silat significantly affects athletes' growth on both a physical and mental level. Pencak Silat enhances a number of physical

**Table 2.** Population, study design PEDro scale

Study	PEDro scale											Total
	1	2	3	4	5	6	7	8	9	10	11	
	Qualification standards	At random distribution	Disguise of allocation	Baseline comparability	Participants who are blind	Assessor without sight	Therapist for the Blind	Observation	Goal to handle analysis	Comparisons between groups	Variability in point measures	
Anastasiou et al. (2024)	1	1	0	1	0	0	0	1	0	0	1	5
Barley & Harms (2024)	1	1	0	1	0	0	0	1	0	1	1	6
Hausen et al. (2024)	1	1	0	1	0	0	0	1	0	1	1	6
Lubis et al. (2024)	1	1	0	1	0	0	0	1	0	1	1	6
Mulia et al. (2024)	1	1	0	1	0	0	0	1	0	1	1	6
Laurin (2024)	1	1	0	1	0	0	0	1	0	1	1	6
Noonan-holohan et al. (2024)	1	0	0	1	0	0	0	1	0	1	1	5
Sulfa et al. (2024)	1	1	0	1	0	0	0	1	0	0	1	5
Jariono et al. (2024)	1	1	0	1	0	0	0	1	0	1	0	5
Cid-Calfucura et al. (2023)	1	0	0	1	0	0	0	1	0	1	1	5
Mojtahedi et al. (2023)	1	1	0	1	0	0	0	1	0	0	1	5
Osipov et al. (2023)	1	1	0	1	0	0	0	1	0	0	1	5
Antonietto (2023)	1	1	0	1	0	0	0	1	0	1	1	6
Korobeynikov et al. (2023)	1	1	0	1	0	0	0	1	0	0	1	5
Francisco et al. (2023)	1	1	0	1	0	0	0	1	0	1	1	6
Baranauskas & Stukas (2022)	1	1	0	1	0	0	0	1	0	1	1	6
Delleli et al. (2022)	1	1	0	1	0	0	0	1	0	1	1	6
Fernando et al. (2022)	1	1	0	1	0	0	0	1	0	0	1	5
Mcclung et al. (2022)	1	1	0	1	0	0	0	1	0	1	1	6
Gürsoy & Canli (2021)	1	1	0	1	0	0	0	1	0	1	1	6
Fidan (2021)	1	1	0	1	0	0	0	1	0	1	1	6
Thomas et al. (2021)	1	1	0	1	0	0	0	1	0	1	1	6
Ouergui et al. (2021)	1	1	0	1	0	0	0	1	0	1	1	6
Chycki et al. (2021)	1	0	0	1	0	0	0	1	0	1	1	5
Ziamba et al. (2020)	1	1	0	1	0	0	0	1	0	0	1	5
Kostrzewa et al. (2020)	1	1	0	1	0	0	0	1	0	1	0	5
Lane et al. (2020)	1	0	0	1	0	0	0	1	0	1	1	5
Kłys et al. (2020)	1	1	0	1	0	0	0	1	0	0	1	5
Russo & Ottoboni (2019)	1	1	0	1	0	0	0	1	0	0	1	5
Zubac et al. (2019)	1	1	0	1	0	0	0	1	0	1	1	6

Note: has a thorough explanation for every item on the PEDro scale ([https://pedro.org.au/wp-content/uploads/PEDro\\_scale.pdf](https://pedro.org.au/wp-content/uploads/PEDro_scale.pdf))

**Tabel 3.** Features of the research that were examined for the review and meta-analysis

Author, Year	Variable	Method index	Sig.(p)
Anastasiou et al. (2024)	Physiological, Psychological and Injury Risk Determinants	A Systematic Review	Sig.
Barley & Harms (2024)	Combat Sports and Their Connection to Total Competitive Success	Various Approaches to Training, Losing, and Winning	Sig.
Hausen et al. (2024)	Qualities of Combat Performance and Physical Capabilities	A maximal graded test exercise (visit 1), resting metabolic rate, anthropometric assessment, blood samples obtained prior to, during, and following the conflict (see 2), and a free combat simulation (3 × 3 min R, 1-minute rest) were all included in the evaluation.	Sig.
Lubis et al. (2024)	Strength, power ratio, and kicking velocity	Impact of plyometric, functional, and interval trainings lasting six weeks	Sig.
Mulia et al. (2024)	Bone mass, muscle mass, and body fat percentage	Correlation Analysis	Sig.
Laurin (2024)	Anaerobic Performance and Competitive Experience	quantitative in character and employs a descriptive-correlational methodology based on a quasi-experimental observational design	Sig.
Noonan-holohan et al. (2024)	The psychological factors that influence weight-making in sports with weight categories	A narrative review	Sig.
Sulfa et al. (2024)	Pencak Silat model for teaching response speed	Study Experimental	Sig.
Jariono et al. (2024)	Training Techniques for Physical Activity and Physical Condition	A Systematic Review	Sig.
Cid-Calfucura et al. (2023)	Strength Training for Enhancing Physical Fitness	A Systematic Review	Sig.
Mojtahedi et al. (2023)	The Value of Mental Hardiness	Examine Combat Sport Competition Anxiety	Sig.
Osipov et al. (2023)	Athletic Capabilities	Intervention with Functional Training	Sig.
Antonietto (2023)	Technical-tactical strategies that result in victory	Study Compacted	Sig.
Korobeynikov et al. (2023)	Specialized working capacity and cognitive functions	Study descriptive	Sig.
Francisco et al. (2023)	Relationships, roles, and violent behaviour	This research uses a combination of methodologies	Sig.
Baranauskas & Stukas (2022)	Loss of Weight and Body Composition	This cross-sectional, non-experimental study	Sig.
Delleli et al. (2022)	Physical Performance, Combat Sports: Technical-Tactical Skills, Perceived Exertion, Physiological Responses, and Physical Performance	A Comprehensive Examination and Meta-Analysis	Sig.
Fernando et al. (2022)	Strength Training-Related Hypertrophy Response to Range of Motion	A New Method for Interpreting the Results	Sig.
Mclung et al. (2022)	Characterization, both physiological and physical	Human Institutional Review Board, Medical Research and Development Command (Fort Detrick, MD)	Sig.
Gürsoy & Canli (2021)	performance traits unique to motor competences, athletic talents, and anthropometric traits	This research uses a combination of methodologies	Sig.
Fidan (2021)	Performance of the Upper Extremities	The creation of a training and assessment system through research	Sig.

**Table 3** (continued)

Author, Year	Variable	Method index	Sig.(p)
Thomas et al. (2021)	The Relationship Between Female Combat Sport Athlete Triad and Weight Loss	Study correlation	Sig.
Ouergui et al. (2021)	Physical Fitness	Study descriptive	Sig.
Chycki et al. (2021)	Improves anaerobic and cognitive performance	Study Experimental	Sig.
Ziamba et al. (2020)	Hormonal Profile a Combat Sports Performance	Study descriptive	Sig.
Kostrzewa et al. (2020)	Predictors of Sports Performance	Multidimensional Regression Models	Sig.
Lane et al. (2020)	Determinants of success by decision, knockout or submission	Perceived and actual fighting ability	Sig.
Klys et al. (2020)	Performance and technical-tactical variables	Optimization of predictors	Sig.
Russo & Ottoboni (2019)	The perceptual – Cognitive skills	A systematic review	Sig.
Zubac et al. (2019)	Fluid balance and hydration status	A meta-analysis and systematic review of both controlled and uncontrolled studies	Sig.

fitness components that are critical for athletic success. Pencak Silat benefits athletes psychologically by fostering the mental toughness and self-control necessary for success in competition. Pencak Silat is more than simply a sport; it's a tool for personal growth as well, as it fosters the development of strong character.

The results of a PRISMA method-assisted literature study show that Pencak Silat significantly influences the development of motor skills, mental toughness, and physical fitness, shaping athletes into elite performers. Every aspect examined in the literature demonstrates that Pencak Silat is a sophisticated and all-encompassing sport that emphasizes both ideal physical and mental development as well as technical fighting skills. The discussion of significant elements uncovered by the literature review is provided below.

#### *Pencak Silat's Impact on Physical Fitness*

Almost every muscle in the body must be used during intense Pencak Silat training, which also involves several physiological systems such as the cardiovascular system, skeletal muscles, and flexibility (Nurhidayah et al., 2024). Pencak Silat can enhance physical fitness elements like strength, endurance, flexibility, and body coordination, according to the research that was examined (Brechney et al., 2022). Kicks, punches, and other movements in Pencak Silat entail both static and dynamic muscle contractions, which eventually result in an increase in muscle strength (Purnamasari et al., 2022).

Furthermore, studies indicate that Pencak Silat exercises can improve both anaerobic and aerobic ability. Regular Pencak Silat training for eight to twelve weeks has been shown in several studies to raise  $VO_{2max}$ , a crucial measure of cardiovascular fitness. Ensuring athletes to endure extended matches without developing notable physical degeneration is crucial.

Pencak Silat exercise promotes better fitness psychologically by fostering traits like discipline, self-control, and self-confidence in addition to its physical benefits (Zulfa & Hanief, 2022). These elements have the potential to motivate people to continue exercising, which will help them become more physically fit overall.

#### *Development of Motor Skills*

Pencak Silat emphasizes not only physical conditioning but also the development of strong motor abilities. Stable balance and good upper-lower limb coordination are necessary for Pencak Silat manoeuvres. Pencak Silat exercises improve both fine and gross motor skills, which enhances an athlete's capacity to react to external cues during competition, according to a review of the literature.

Hand-eye coordination, balance, and accuracy in both attacking and defending are among the motor abilities that have improved (Burhanuddin et al., 2023). According to the study, after participating in a lengthy training program, Pencak Silat athletes had a considerable improvement in their coordination and response time (Rahayuni, Maulidiya, et al., 2023). This aids them in handling fast-paced match scenarios that call for quick decisions.

Pencak Silat's Improvement of Specific Motor Skills. Elite Pencak Silat athletes need to possess precise, quick, and potent offensive abilities (Hariono et al., 2024). Exercise regimens like Shadow Fighting or repetitive punch and kick exercises (repetition techniques) might enhance the capacity to execute movements (Mardius et al., 2024). Skills related to defence: quick reflexes and coordination are necessary for defensive manoeuvres such as avoiding, parrying, and blocking (Nugroho et al., 2021). The study's findings can be used to explain how athletes can improve their ability to react to opponent strikes by engaging in reaction training using a variety of tactile and visual stimuli.

### *Mental Stability and Self-Restraint*

The development of the mind is given equal weight with the physical side of Pencak Silat. Pencak Silat demands intense discipline, emotional restraint, and focused attention. In comparison to players from other sports, the study's findings indicate that Pencak Silat competitors are more mentally capable of handling psychological pressure.

Because athletes need to be able to handle pressure from their surroundings and handle stress, tension, and anxiety, mental resilience is crucial in the competitive setting (Rustiyanti et al., 2023). Athletes who practice Pencak Silat learn emotional self-control, which helps them remain composed under pressure and make wise choices throughout a game (Sulfa et al., 2023). Pencak Silat athletes are more psychologically resilient due to their high mental resilience, which helps them overcome a variety of obstacles during their sports careers.

**The Significance of Mental Hardiness in Handling Pressure During a Match.** The capacity of athletes to maintain focus, self-assurance, and excitement in the face of adversity is known as mental toughness or resilience (Kiliç, 2021). According to (Low et al., 2023), athletes with high mental resilience are typically better equipped to handle pressure from rivals, officials, spectators, and shifting competition conditions. Verdolini et al., (2021), reported that the study yielded specific findings regarding the ways in which sportsmen dealt with stress, anxiety, and outside pressure during games. These strategies could be assessed using in-depth interviews or mental resilience assessment tools. Elite athletes employ effective mental strategies for the development of mental resilience, such as positive self-talk, visualization, meditation, or relaxation techniques (Ungar & Theron, 2019). According to Verdolini et al., (2021) According to.

With this talk, the research can offer a thorough understanding of the significance of mental toughness and self-control development for elite Pencak Silat athletes, as well as suggestions for the use of more efficient mental development techniques in athlete coaching programs.

### *The development of athletes' morality and character*

Pencak Silat emphasizes significant spiritual and moral qualities, such as discipline, humility, courtesy, and respect, in addition to physical and mental aspects. The Pencak Silat ideology, which teaches athletes to respect opponents and maintain integrity in competition, is a reflection of these ideals. Knowledge on the development of character via Pencak Silat demonstrates how athletes acquire strong discipline, dedication to training, and morality in handling wins and losses.

Athletes' personalities are shaped by the moral principles found in Pencak Silat, making them not only more gifted intellectually and physically but also more responsible and sportsmanlike (Schiff, 2022). According to a survey of the literature, Pencak Silat helps develop athletes who are more moral, disciplined, and capable of managing their emotions under pressure. To guarantee that athletes can serve as positive role models for other athletes, fans, and society at large, character development and ethics are crucial. Character development programs, which emphasize the practice of discipline, honesty, and accountability, have a significant part in moulding athletes with high integrity,

according to Petróczi's research on the subject (Petróczi et al., 2022). Strong-character athletes typically exhibit sportsmanship, integrity during competition, and respect for officials, coaches, and other teams (Loyens et al., 2022).

**Integrating Moral Principles into the Training Process:** Research (Zhang et al., 2023), demonstrates how moral principles including justice, empathy, and honesty are included into athletes' routine training (Jariono et al., 2024). The Value of Character Development via a Holistic Approach: Athletes' character development must be approached from a holistic perspective, taking into account their mental, emotional, and physical well-being (Rusilowati & Wahyudi, 2020). Reflection sessions, moral values conversations, and regular assessments of attitudes and behaviours are all common components of an effective character development program (Karimah et al., 2021).

### **Conclusions**

According to a thorough literature analysis, numerous training plans have been developed to enhance the physical attributes of Pencak Silat players, such as balance, strength, muscle power, speed and acceleration, flexibility, agility, and explosive power.

### **Acknowledgment**

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### **Conflict of Interest**

The authors reported no conflicts of interest.

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# Пенчак Сілат як комплексний метод ментального, фізичного та духовного зростання: Систематичний огляд

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Авторський вклад: А – дизайн дослідження; В – збір даних; С – статаналіз; D – підготовка рукопису; Е – збір коштів

Реферат. Стаття: 11 с., 3 табл., 2 рис., 73 джерела.

**Мета дослідження.** Мета дослідження полягала в поліпшенні розуміння фізичної продуктивності шляхом огляду літератури щодо ролі, яку відіграє Пенчак Сілат у контексті розвитку елітних спортсменів. Традиційне індонезійське бойове мистецтво Пенчак Сілат містить комплексний метод, що охоплює ментальне, фізичне та духовне зростання.

**Матеріали та методи.** Аналіз літературних джерел щодо впливу Пенчак Сілат на розвиток елітних спортсменів проводився за допомогою методики фільтрування PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) – переважні елементи звітування для систематичних оглядів і метааналізів. У цьому дослідженні використовувалася систематична оцінка релевантної літератури з метою визначення впливу Пенчак Сілат на рівень ментальної витривалості, рухових здібностей і фізичної підготовленості. У статтях, опублікованих між 2019 і 2024 роками, розглядалися питання підготовки спортсменів з Пенчак Сілат до змагань за допомогою фізичної підготовки. Електронний пошук проводився шляхом використання таких наукометричних баз даних: Web of Science, PubMed та Scopus. Провівши аналіз літератури, складено перелік усіх робіт, в яких обговорювалися аспекти розвитку елітних спортсменів з Пенчак Сілат.

**Результати.** Ґрунтовний огляд літератури показав, що Пенчак Сілат сприяє підвищенню показників витривалості, спритності, гнучкості та силових якостей організму спортсменів. Крім того, концепція Пенчак Сілат розвиває сміливість, дисципліну та здібності до стратегічного мислення, які є необхідними чинниками для становлення успішних спортсменів. Результати цього дослідження також демонструють здатність Пенчак Сілат досягати балансу між розумовими та фізичними якостями, що має ключове значення для подолання труднощів як на внутрішніх, так і на міжнародних змаганнях. Передбачається, що результати дослідження сприятимуть кращому розумінню Пенчак Сілат як комплексного та відмінного інструменту розвитку спортсменів.

**Висновки.** Пенчак Сілат є методом саморозвитку, який допомагає спортсменам досягти виняткових результатів у всіх сферах життя: фізичній, психологічній та духовній. Адже зазначений вид спорту є не лише бойовим мистецтвом. Пенчак Сілат, в якому акцент робиться на витривалості, ментальній стійкості та стратегії, є ефективним інструментом досягнення високих результатів у спорті.

**Ключові слова:** систематичний огляд, Пенчак Сілат, фізична продуктивність, спортсмени високої кваліфікації.

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