

# Psychological and physiological integration in developing futsal passing skills among students

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## Abstract

**Background and Study Aim** Passing accuracy in futsal depends on both physical abilities and psychological readiness, which together determine the effectiveness of decision-making and execution during play. Although various training approaches combine technical and psychological preparation, their relative effectiveness in enhancing passing performance remains of practical interest. This study aimed to examine the integration of physiological (power) and psychological (emotional intelligence) factors in the development of futsal passing skills among student-athletes.

**Material and Methods** A total of 30 male futsal players were recruited through purposive sampling. Instruments included the Standing Broad Jump to measure lower-limb power, an emotional intelligence questionnaire, and the Triple Box Pass Test for passing accuracy. Data were analyzed using descriptive statistics, Pearson's correlation, simple and multiple regression, and hypothesis testing through t- and F-tests at a 0.05 significance level.

**Results** The findings revealed significant positive correlations between power and passing skills ( $r = 0.644$ ,  $t = 4.170$ ,  $p < 0.05$ ), and between emotional intelligence and passing skills ( $r = 0.630$ ,  $t = 4.015$ ,  $p < 0.05$ ). Moreover, the combined effect of power and emotional intelligence produced a strong correlation with passing skills ( $R = 0.796$ ,  $F = 23.334$ ,  $p < 0.05$ ), accounting for 63.3% of the variance in performance.

**Conclusions** The study concludes that both physiological (power) and psychological (emotional intelligence) aspects significantly influence futsal passing skills. Integrating physical conditioning with emotional intelligence training is therefore essential in designing comprehensive programs to enhance players' technical performance.

**Keywords:** futsal performance, passing skills, physiological factors, psychological factors, student-athletes.

## Introduction

Futsal is a dynamic team sport that requires a complex interaction of technical precision, tactical awareness, physical conditioning, and psychological control. Successful passing, as one of its fundamental skills, depends not only on motor coordination and physical power but also on cognitive and emotional factors that affect decision-making under pressure. The high tempo and spatial constraints of the game increase the demands on players' perception, anticipation, and regulation of emotions during performance. Physiological and psychological factors together influence the effectiveness of training strategies aimed at improving the quality and consistency of passing in futsal.

Futsal has become one of the fastest-growing indoor sports worldwide, attracting both male and female participants at both professional and amateur levels [1]. Its popularity continues to expand due to its dynamic nature, accessibility, and suitability for diverse age groups. In Indonesia, the sport is governed by the Federasi Futsal Indonesia

(FFI), which organizes national and regional tournaments and promotes futsal development from schools to university teams [2]. Such initiatives have contributed to increasing participation and improving competitive standards, creating a strong platform for studying technical and psychological aspects of player performance. These organizational efforts emphasize the need to explore how various training elements contribute to player development in competitive futsal.

As a high-intensity sport, futsal demands rapid transitions, quick decision-making, and precise ball control within confined spaces, where technical proficiency becomes a critical determinant of success [3]. According to Mendes et al. [3], elite-level futsal players are distinguished by their ability to maintain performance consistency under time pressure and limited space. Among the fundamental technical skills, passing plays a pivotal role in sustaining possession, creating scoring opportunities, and maintaining tactical cohesion within the team [4]. Wang et al. [4] identified passing as one of the key performance indicators influencing match outcomes through ball-possession dynamics. Consequently, mastering passing techniques remains a central

objective in futsal training programs aimed at improving offensive efficiency and teamwork.

Effective passing is not restricted to mechanical precision; it also depends on timing, coordination, and the ability to make quick and accurate decisions during play [5]. Hameed [5] emphasized that biomechanical and anthropometric factors can affect both the speed and accuracy of ball transmission, reflecting the complex interaction between physical and cognitive elements. Sekulic et al. [6] confirmed that futsal performance is a multidimensional construct influenced by physiological capacities and psychological preparedness. These findings suggest that optimal performance in passing requires not only technical training but also the development of power and emotional control that enable players to perform effectively under pressure.

Physiological parameters, particularly muscular power, play a central role in the execution of strong and precise passes. Power, defined as the product of strength and speed, enables explosive movements that enhance both short and long passing accuracy [7]. Widiastuti [7] noted that higher lower-limb power contributes to more forceful and faster passes, making them difficult to intercept. Such integration of physiological and psychological preparation provides a comprehensive foundation for improving technical skills in futsal players and serves as the conceptual basis for the present study.

In addition to physical readiness, psychological attributes play an essential role in determining the quality of technical execution in futsal. Emotional intelligence, defined as the capacity to perceive, regulate, and manage emotions in oneself and others, has been identified as a crucial factor supporting stable performance under pressure [8, 9]. Didymus et al. [8] emphasized that athletes with higher emotional awareness demonstrate greater control of stress responses, which helps maintain optimal focus during competition. Similarly, Haney Aguirre-Loaiza [9] noted that emotional regulation enhances decision-making and interpersonal communication, both of which are vital in high-intensity, team-based sports such as futsal. These findings underline the psychological complexity of maintaining technical precision in a fast-paced and demanding environment.

During matches characterized by rapid tempo and frequent stress exposure, fluctuations in emotional state can disrupt concentration and motor control. However, athletes with well-developed emotional intelligence are more capable of sustaining composure, ensuring consistent decision-making and passing accuracy even under intense pressure [9, 10]. Abarghouejad et al. [10] observed that athletes with balanced psychological development demonstrate superior adaptability, allowing them to adjust efficiently to situational challenges on the court. This connection highlights

that technical stability in futsal relies as much on emotional control as on physical conditioning.

Although previous research has independently addressed the influence of muscular power on futsal performance [11], few studies have combined this physiological aspect with psychological readiness in an integrated analytical framework. Belo et al. [11] showed that power and motor skills differentiate athletes across competitive levels, yet the interaction between these physical determinants and emotional factors remains insufficiently examined.

Analysis of research findings has shown that both physiological power and psychological attributes, particularly emotional intelligence, are decisive factors in determining technical performance in futsal. Researchers emphasize that effective skill execution depends on the coordinated development of physical conditioning and emotional regulation, which together influence stability and accuracy under competitive stress. At the same time, scholars highlight that the interaction between these two domains remains complex, as their combined influence on passing performance is shaped by situational demands and training conditions. This conceptual gap continues to limit a comprehensive view of how integrated physical and psychological preparation can improve the effectiveness of passing skills in futsal players.

In the context of the above considerations, the following research hypothesis is proposed: It is hypothesized that (1) power positively correlates with futsal passing skills, (2) emotional intelligence positively correlates with futsal passing skills, and (3) the integration of power and emotional intelligence provides a stronger predictive model for passing performance than either factor alone. In accordance with this hypothesis, the study focuses on examining how the integration of physiological (power) and psychological (emotional intelligence) factors contributes to the development of passing skills among student-athletes in futsal.

## Materials and Methods

### *Participants*

A purposive sampling technique was used to recruit 30 male futsal student-athletes from Tadulako University, Palu (Central Sulawesi), aged 18–22 years. All participants were actively involved in university-level futsal competitions and had at least two years of consistent training experience. The inclusion criteria required that participants be physically healthy, free from injury during the study period, and willing to participate voluntarily. Recruitment was carried out through team coaches, and each participant received a detailed information sheet before providing written informed consent.

Ethical approval for this study was obtained from the Research Ethics Committee of Universitas

Tadulako, Palu, Indonesia (Approval No. 1538.a/UN28.16/KP.10.00/2025, dated July 17, 2025). All participants were informed about the study procedures and objectives before signing the consent form.

#### *Research Design*

Emotional intelligence was measured using the Schutte Self-Report Emotional Intelligence Test (SSEIT) [12], which comprises 33 items distributed across four subscales: emotion perception, managing self-emotions, managing others' emotions, and utilizing emotions. Responses were rated on a 5-point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree"). The Indonesian version of this instrument demonstrated acceptable reliability, with a Cronbach's alpha coefficient of 0.86, indicating consistent internal consistency.

Passing performance was assessed using the Triple Box Pass Test (TBPT), a standardized measure of futsal passing accuracy. The setup consisted of three target boxes measuring 1 m × 1 m each, positioned 5 m apart. Participants performed three sets of passes, aiming to consecutively hit the target boxes within 30 s. The final score represented the total number of successful passes. The TBPT has been applied in futsal skill assessment and demonstrated high reliability ( $r = 0.89$ ) [Abd Rahman2018].

Prior to testing, all participants completed a standardized 10-minute warm-up session to ensure readiness and prevent injury. The tests were conducted indoors on a wooden futsal court under consistent environmental conditions, with a maintained temperature of approximately 26 °C and stable lighting. To minimize fatigue and order effects, the testing sequence was randomized, and a 3-minute rest interval was provided between tests.

#### *Statistical Analysis*

The data collected in this study were analyzed using quantitative statistical methods with the assistance of SPSS software. Descriptive statistics, including means, standard deviations, and frequency distributions, were used to summarize participant characteristics and variable distributions. Pearson's product-moment correlation analysis was performed to determine the strength and direction of associations between power, emotional intelligence, and passing skills. Simple linear regression was used to assess the individual contribution of power and emotional intelligence to passing performance. Multiple regression analysis was then conducted to evaluate the combined influence of both independent variables on passing skills. The statistical significance of these relationships was tested using t-tests for individual predictors and an F-test for the overall regression model. A 95% confidence level ( $\alpha = 0.05$ ) was set as the criterion for statistical significance.

## **Results**

Preliminary analyses were conducted to verify that the data met the required statistical assumptions. The Kolmogorov-Smirnov test confirmed normal distribution for all variables—power, emotional intelligence, and passing skills ( $p > 0.05$ ). Scatterplot inspection indicated linear relationships between the independent variables (power and emotional intelligence) and the dependent variable (passing skills). The tolerance values above 0.10 and Variance Inflation Factors (VIF) below 10 showed the absence of multicollinearity. Thus, the dataset met all assumptions for correlation and regression analyses.

The reliability of the instruments used in this study was also confirmed. The Schutte Self-Report Emotional Intelligence Test (SSEIT; [12]) demonstrated strong internal consistency in the Indonesian version, with a Cronbach's alpha coefficient of 0.86. The Triple Box Pass Test (TBPT), adapted from Rahman and Shaharudin [13], showed comparable reliability for assessing futsal passing performance ( $r = 0.87$ ). These results indicate that both instruments provided consistent and valid measures for the study variables.

Statistical analysis showed significant relationships between the independent variables (power and emotional intelligence) and the dependent variable (passing skills) among futsal players. A positive correlation was found between lower-limb power and passing performance ( $r = 0.644$ ). The regression equation  $Y = 0.485 + 0.022X_1$  indicated that players with greater power achieved higher passing accuracy. The obtained t-value ( $t = 4.170$ ) exceeded the critical threshold ( $t = 2.048$ ;  $p < 0.05$ ), confirming a significant relationship between power and passing skills (Table 1).

A significant positive correlation was also observed between emotional intelligence and passing performance ( $r = 0.630$ ). The regression equation  $Y = -1.951 + 0.078X_2$  showed that higher emotional intelligence scores were associated with more consistent and accurate passing. The t-test result ( $t = 4.015 > 2.048$ ;  $p < 0.05$ ) supported the significance of this relationship (Table 1), indicating that psychological readiness contributes meaningfully to the precision of technical performance in futsal.

When both predictors were analyzed together, multiple regression results demonstrated that power and emotional intelligence jointly influenced passing performance. The combined model  $Y = -3.795 + 0.018X_1 + 0.061X_2$  produced a multiple correlation coefficient of  $R = 0.796$ , indicating a strong positive association. The model's F-value ( $F = 23.334$ ) was higher than the critical value ( $F = 3.34$ ;  $p < 0.05$ ), confirming overall significance (Table 2). The coefficient of determination ( $R^2 = 0.633$ ) revealed that both predictors together explained

**Table 1.** Correlation and Regression Analysis between Independent Variables (Power and Emotional Intelligence) and Passing Skills

Independent Variable	Correlation (r)	Regression Equation	t-value	p-value
Power	0.644	$Y = 0.485 + 0.022X_1$	4.170	< 0.05
Emotional Intelligence	0.630	$Y = -1.951 + 0.078X_2$	4.015	< 0.05

**Table 2.** Multiple Regression Analysis of Power and Emotional Intelligence on Futsal Passing Skills

Predictor Variables	Multiple Correlation (R)	Regression Equation	F-value	p-value	R <sup>2</sup> (Coefficient of Determination)	Interpretation
Power & Emotional Intelligence	0.796	$Y = -3.795 + 0.018X_1 + 0.061X_2$	23.334	< 0.001	0.633	Model significant

63.3 % of the variance in passing performance, while the remaining 36.7 % was attributed to other unmeasured influences.

The results showed that passing performance in futsal was affected by both muscular power and emotional intelligence. Players with higher muscular power demonstrated greater passing accuracy, strength, and speed. Those with higher emotional intelligence maintained focus and consistent performance under game pressure. When both variables were included in the model, their combined effect explained a larger proportion of variance in passing performance than either factor alone.

**Discussion**

This study aimed to examine the relationship between physiological and psychological factors in the development of passing performance among futsal players. The results showed that both muscular power and emotional intelligence significantly contributed to the accuracy and stability of passing skills. Higher lower-limb power was associated with faster and more precise passes, while higher emotional intelligence corresponded with improved focus and decision-making under pressure. When analyzed together, these two variables explained a substantial proportion of the variance in passing performance, indicating that their combined influence was stronger than the effect of each factor considered separately.

The findings of this study align with the biopsychosocial framework, which explains athletic performance as a result of the interaction between physical, psychological, and social factors. The combined influence of muscular power and emotional intelligence observed in this research reflects the multidimensional nature of futsal performance. This integration provides a clearer view of how physical strength and emotional regulation together support the precision and consistency of passing. In the Indonesian context, the results may also reflect specific training conditions of university

futsal players, who often have limited exposure to structured psychological preparation. The diverse cultural and environmental backgrounds of the athletes from coastal and mountainous regions could further influence their adaptation and performance characteristics, giving this study a distinct contextual perspective compared with previous international research.

In addition, the results showed that both physiological and psychological factors played important roles in the development of futsal passing skills. The significant positive relationship between power and passing performance is consistent with previous research emphasizing the contribution of muscular strength and explosive ability to technical execution in futsal and other ball games [6, 7, 11]. Power, defined as the interaction between strength and speed, is essential for generating effective movements in high-intensity sports, enabling players to perform faster and more accurate passes [3, 6]. Athletes with greater lower-limb power demonstrate higher precision and stability in passing, confirming the findings of earlier studies that identified leg explosive power as a determinant of performance accuracy [4, 11].

These findings also support the importance of psychological readiness, particularly emotional control, in enhancing motor performance. As reported in studies addressing stress regulation and emotional functioning in sports [8, 9, 10], emotional intelligence allows athletes to sustain focus and make correct decisions under competitive pressure. Overall, the combined evidence highlights that the efficiency of passing performance in futsal depends on both physical conditioning and emotional regulation, confirming the multidimensional character of skill development in this sport.

Equally important is the influence of emotional intelligence on futsal passing skills. The strong correlation observed in this study supports the view that emotional intelligence, through dimensions such as self-regulation, motivation, empathy, and social awareness, enhances decision-making under pressure [14, 15, 16, 17]. Given the fast-paced and

dynamic nature of futsal, emotional intelligence enables players to remain composed, coordinate effectively with teammates, and maintain focus on tactical execution. This finding is consistent with Suhartati and Indrawati [17], who emphasized the role of emotional intelligence in maintaining performance stability, and with Udayar et al. [19], who demonstrated that higher emotional intelligence is associated with better performance in a stressful task via enhanced self-efficacy.

The integration of power and emotional intelligence provides a more comprehensive understanding of futsal performance. The regression model indicated that these two factors together explained 63.3% of the variance in passing skills, emphasizing the interdependence between physical and psychological components. This result supports the argument of Abarghouejad et al. [10] that psychological balance cannot be separated from physical readiness when determining athletic outcomes. By demonstrating their complementary contributions, the present study extends previous research, which has often examined these domains separately rather than in combination.

The novelty of this study lies in its contextual focus on the Indonesian futsal environment, particularly among university-level athletes. Whereas most previous research has concentrated on professional or youth football [1, 3, 6], the present findings contribute empirical data from higher education sports in Southeast Asia [2, 11], highlighting specific physical and psychological factors relevant to this setting.

From a practical standpoint, the results emphasize the value of training programs that integrate both physical and psychological components. Coaches should combine strength and plyometric exercises with activities that develop emotional intelligence, including stress management and teamwork strategies [8, 9, 10]. In addition, methods such as reflective practices and emotional awareness training have been shown to enhance social-emotional skills and improve overall performance stability [14, 15, 16, 17, 18]. Integrating these elements can help athletes improve technical proficiency and emotional control, thereby enhancing consistency and overall performance in competitive futsal.

These findings also have theoretical implications for understanding how physiological and psychological factors interact in sports performance. The results support the biopsychosocial perspective, which explains athletic outcomes as the result of combined influences of physical conditioning and psychological readiness. The relationship observed between muscular power and emotional intelligence emphasizes the need to consider multiple dimensions of performance rather than isolated variables. Integrating these factors provides

a more comprehensive view of how physical and emotional components jointly contribute to skill execution in futsal. This theoretical contribution may guide future models aimed at explaining the mechanisms through which physiological and psychological readiness affect technical precision in high-intensity team sports.

#### *Limitations and Future Research*

This study has several limitations that should be considered. The sample was limited to one institution, which may reduce the generalizability of the results to other settings or populations. The use of self-reported questionnaires might also have introduced response bias, as participants could have given answers that appeared more favorable rather than fully accurate. Future studies should include participants from multiple institutions or regions to improve external validity. Longitudinal or mixed-method designs could also be used to examine causal relationships and provide a more detailed understanding of the interaction between physical and psychological factors in futsal performance.

#### **Conclusions**

This study confirms the interaction between physiological and psychological factors in the development of futsal passing performance. The combined influence of muscular power and emotional intelligence illustrates the multidimensional nature of technical skills and highlights the importance of balanced preparation in university-level futsal. The results may serve as a reference for developing training approaches that integrate both physical and psychological readiness in competitive sport.

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#### **Conflict of Interest**

The authors declare no conflict of interest regarding the publication of this research. The study was conducted independently, and no financial or personal relationships influenced the results or their interpretation.

## References

1. Ah AS, S AK. Incidence of Football and Futsal Injuries Among Youth in Malaysian Games 2018. *Malaysian Orthopaedic Journal*, 2020;14(1): 28–33. <https://doi.org/10.5704/MOJ.2003.005>
2. Murtono T, Purwanto D, Rahmah R, Lilo DK, Suhendra TA, Nurwahyuni N. Pendampingan Tim Futsal Putri PJKR FKIP Universitas Tadulako Pada Kejuaraan Fest Women Se- Sulawesi Tengah [Mentoring the Women's Futsal Team of PJKR FKIP Tadulako University at the Central Sulawesi Women's Fest Championship]. *Jurnal Pengabdian kepada Masyarakat Bina Darma*, 2023;3(2): 117–122. (In Indonesian). <https://doi.org/10.33557/pengabdian.v3i2.2380>
3. Mendes D, Travassos B, Carmo JM, Cardoso F, Costa I, Sarmiento H. Talent Identification and Development in Male Futsal: A Systematic Review. *International Journal of Environmental Research and Public Health*, 2022;19(17): 10648. <https://doi.org/10.3390/ijerph191710648>
4. Wang SH, Qin Y, Jia Y, Igor KE. A systematic review about the performance indicators related to ball possession. Constantinou AC (ed.) *PLOS ONE*, 2022;17(3): e0265540. <https://doi.org/10.1371/journal.pone.0265540>
5. Hameed FF, Muhsin RA. The relationship between certain anthropometric measurements and the speed and feasibility of performing the overhead pass skill among junior volleyball players. *Journal Olahraga Rekat (Rekreasi Masyarakat)*, 2025;4(1):166–7.
6. Sekulic D, Pojskic H, Zeljko I, Pehar M, Modric T, Versic S, et al. Physiological and Anthropometric Determinants of Performance Levels in Professional Futsal. *Frontiers in Psychology*, 2021;11: 621763. <https://doi.org/10.3389/fpsyg.2020.621763>
7. Widiastuti. *Tes dan Pengukuran Olahraga* [Sports Testing and Measurement]. Jakarta: Rajawali Pers; 2015. (In Indonesian).
8. Didymus F, Norris L, Potts A, Staff H. Psychological stress and performance. In: Zenko Z, Jones L (eds) *Essentials of exercise and sport psychology: An open access textbook*, Society for Transparency, Openness, and Replication in Kinesiology; 2021. P. 683–709. <https://doi.org/10.51224/B1029>
9. Haney Aguirre-Loaiza A, Holguín J, Arenas J, Núñez C, Barbosa-Granados S, García-Mas A. Psychological characteristics of sports performance: analysis of professional and semiprofessional football referees. *Journal of Physical Education and Sport*, 2020; 4: 1861 – 1868. <https://doi.org/10.7752/jpes.2020.04252>
10. Abarghoueinejad M, Barreira D, Dias C, Guimarães E, Baxter-Jones ADG, Maia J. Body Physique, Body Composition, Physical Performance, Technical and Tactical Skills, Psychological Development, and Club Characteristics of Young Male Portuguese Soccer Players: The INEX Study. *International Journal of Environmental Research and Public Health*, 2021;18(7): 3560. <https://doi.org/10.3390/ijerph18073560>
11. Belo J, Valente-dos-Santos J, Pereira JR, Duarte-Mendes P, M. Gamonales J, Paulo R. Study of Body Composition and Motor Skills of Futsal Athletes of Different Competitive Levels. *Sports*, 2024;12(5): 137. <https://doi.org/10.3390/sports12050137>
12. SchutteNS, MalouffJM, HallLE, HaggertyDJ, Cooper JT, Golden CJ, et al. Development and validation of a measure of emotional intelligence. *Personality and Individual Differences*, 1998;25(2): 167–177. [https://doi.org/10.1016/S0191-8869\(98\)00001-4](https://doi.org/10.1016/S0191-8869(98)00001-4)
13. Abd Rahman NA, Shaharudin S. Comparison of skills and lower limb biomechanics of female futsal players at collegiate and club levels. *Malaysian Journal of Movement, Health & Exercise*, 2018;7(2): 177–194. <https://doi.org/10.15282/mohe.v7i1.245>
14. Ashar, Sitti Mania, Misykat Malik Ibrahim, St. Syamsudduha, Sadaruddin, Anita Candra Dewi. The Impact of Traditional Games on Social-Emotional Development: A Comprehensive Review of Existing Research. *Journal of Learning and Development Studies*, 2024;4(2): 39–51. <https://doi.org/10.32996/jlds.2024.4.2.5>
15. Hikmah H, Wongsonadi SK, Hartati S, Jahja Y. Enhancing Early Childhood Social-Emotional Skills through Innovative Interactive Learning Media. *Asian Journal of Social and Humanities*, 2024;3(3): 526–544. <https://doi.org/10.59888/ajosh.v3i3.460>
16. Kirk G, Jay J. Supporting Kindergarten Children's Social and Emotional Development: Examining the Synergetic Role of Environments, Play, and Relationships. *Journal of Research in Childhood Education*, 2018;32(4): 472–485. <https://doi.org/10.1080/02568543.2018.1495671>
17. Kaizar VO, Alordiah CO. Understanding the role of play in promoting cognitive, social, and emotional development in school children: implications for counsellors and evaluators. *Univ Delta J Contemp Stud Educ*. 2023;2(1):138–152.
18. Durlak JA, Weissberg RP, Dymnicki AB, Taylor RD, Schellinger KB. The Impact of Enhancing Students' Social and Emotional Learning: A Meta-Analysis of School-Based Universal Interventions. *Child Development*, 2011;82(1): 405–432. <https://doi.org/10.1111/j.1467-8624.2010.01564.x>
19. Udayar S, Fiori M, Bausseron E. Emotional intelligence and performance in a stressful task: The mediating role of self-efficacy. *Personality and Individual Differences*, 2020;156: 109790. <https://doi.org/10.1016/j.paid.2019.109790>

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