



Original article. Mindset, resilience, and future career orientation in young professional badminton athletes: implications for dual career development.

Vol. 12, n.º 5; p. 1-21, August 2026. <https://doi.org/10.55040/4z5q7t14>

Mindset, resilience, and future career orientation in young professional badminton athletes: implications for dual career development

Actitud mental, resiliencia y orientación profesional futura en jóvenes deportistas profesionales de bádminton: implicaciones para el desarrollo de una doble carrera

Hermawan Pamot Raharjo¹; Drastiana Siwi Maheswari²; Dwi Gansar Santi Wijayanti³; Nanda Farah Muftia⁴; Atchara Purakom⁵

Universitas Negeri Semarang, Indonesia¹; Universitas Negeri Semarang, Indonesia²; Universitas Negeri Semarang, Indonesia³; Universitas Negeri Semarang, Indonesia⁴; Kasetsart University, Thailand⁵

Correspondance author: hermawan_pamot@mail.unnes.ac.id

Editorial Schedule: Article received: 08/06/2026 Accepted: 10/08/2026 Published: 01/09/2026
<https://doi.org/10.55040/4z5q7t14>

To cite this article use the following reference:

Raharjo, H. P., Maheswari, D. S., Wijayanti, D. G. S., Muftia, N. F., & Purakom, A. (2026). Mindset, resilience, and future career orientation in young professional badminton athletes: Implications for dual career development. *Sportis Sci J*, 12(5), 1-22.
<https://doi.org/10.55040/4z5q7t14>

Author contribution: H.P.R. contributed to the research conceptualization, study design, data collection and/or assembly of data, data analysis and interpretation, manuscript writing, critical revision of the article, and final approval of the manuscript. D.S.M. contributed to the data collection and/or assembly of data, data analysis and interpretation, and final approval of the manuscript. D.G.S.W. and N.F.M. contributed to the data collection and/or assembly of data, data analysis and interpretation, critical revision of the article, and final approval of the manuscript. A.P. contributed to the critical revision of the article and final approval of the manuscript. All authors reviewed and approved the final version of the manuscript.

Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Conflict of interest: The author declares no conflict of interest related to this study.



Original article. Mindset, resilience, and future career orientation in young professional badminton athletes: implications for dual career development.

Vol. 12, n.º 5; p. 1-21, August 2026. <https://doi.org/10.55040/4z5q7t14>

Ethical aspects: Ethical approval was obtained from the Ethics Committee of Universitas Negeri Semarang (Protocol No. 194/KEPK/EC/2025). All procedures complied with the Declaration of Helsinki. Written informed consent was obtained from all participants.

Abstract

Athletes' psychological readiness is essential not only for performance development but also for successful career transitions beyond sport. However, many young athletes tend to prioritize performance outcomes over long-term career planning. This study aimed to examine the mindset, resilience, and future career orientation of young professional badminton athletes within the context of dual career development. A descriptive quantitative design was employed involving 19 athletes selected through purposive sampling. Data were collected using a structured questionnaire based on Growth Mindset Theory, Social Cognitive Career Theory (SCCT), and the Health Action Process Approach (HAPA). The instrument consisted of 25 dichotomous items (Yes/No) with good reliability ($KR-20 = 0.82$). Data were analyzed using descriptive statistics (frequency and percentage). The findings suggested high levels of growth mindset (96.0%) and resilience and self-regulation (95.0%) among the participating athletes, indicating strong persistence and adaptive learning behaviors. In contrast, career awareness and future orientation, although still very high (86.7%), showed lower scores than the other dimensions, suggesting a gap in long-term career preparation. In conclusion, the participating athletes appeared to demonstrate positive psychological characteristics related to performance development; however, greater emphasis on dual career support is needed. These findings highlight the potential value of integrating career planning and educational guidance into athlete development programs to support long-term career sustainability.

Keywords: growth mindset; resilience; dual career; athlete development; career orientation; sport psychology

Resumen

La preparación psicológica de los deportistas es esencial no solo para el desarrollo del rendimiento, sino también para una transición profesional satisfactoria tras la vida deportiva. Sin embargo, muchos deportistas jóvenes tienden a dar prioridad a los resultados de rendimiento frente a la planificación profesional a largo plazo. El objetivo de este estudio fue examinar la mentalidad, la resiliencia y la orientación profesional futura de jóvenes deportistas profesionales de bádminton en el contexto del desarrollo de una doble carrera. Se empleó un diseño cuantitativo descriptivo en el que participaron 19 deportistas seleccionados mediante un muestreo intencional. Los datos se recopilaron mediante un cuestionario estructurado basado en la teoría de la mentalidad de crecimiento, la teoría cognitiva social de la carrera (SCCT) y el enfoque del proceso de acción para la salud (HAPA). El instrumento constaba de 25 ítems dicotómicos (Sí/No) con buena fiabilidad ($KR-20 = 0,82$). Los datos se analizaron mediante estadísticas descriptivas (frecuencia y porcentaje). Los resultados sugirieron altos niveles de mentalidad de crecimiento (96,0 %) y de resiliencia y autorregulación (95,0 %) entre los deportistas participantes, lo que indica una gran persistencia y comportamientos de aprendizaje adaptativo. Por el contrario, la conciencia profesional y la orientación hacia el futuro, aunque



Original article. Mindset, resilience, and future career orientation in young professional badminton athletes: implications for dual career development.

Vol. 12, n.º 5; p. 1-21, August 2026. <https://doi.org/10.55040/4z5q7t14>

siguen siendo muy elevadas (86,7 %), registraron puntuaciones más bajas que las demás dimensiones, lo que sugiere una carencia en la preparación profesional a largo plazo. En conclusión, los deportistas participantes parecieron demostrar características psicológicas positivas relacionadas con el desarrollo del rendimiento; sin embargo, es necesario poner mayor énfasis en el apoyo a la doble carrera. Estos resultados ponen de relieve el valor potencial de integrar la planificación profesional y la orientación educativa en los programas de desarrollo de los deportistas para apoyar la sostenibilidad de la carrera a largo plazo.

Palabras clave: mentalidad de crecimiento; resiliencia; doble carrera; desarrollo deportivo; orientación profesional; psicología del deporte



Original article. Mindset, resilience, and future career orientation in young professional badminton athletes: implications for dual career development.

Vol. 12, n.º 5; p. 1-21, August 2026. <https://doi.org/10.55040/4z5q7t14>

Introduction

Athletes' psychological readiness has become an increasingly important issue in sport science, particularly in relation to performance development and long-term career sustainability. Many young athletes tend to focus primarily on achieving peak performance, often neglecting preparation for life after sport, which can lead to difficulties during career transition phases (Panganiban & Nabor, 2026; Park et al., 2013; Wylleman & Reints, 2010). Previous studies have shown that athletes frequently prioritize training and competition over education and career planning, creating imbalances in their development (Hong & Hong, 2024; Stambulova et al., 2021). In fact, research indicates that athletes often rely heavily on personal resilience to cope with increasing demands in sport, while structured support for career planning remains limited. This condition highlights a critical problem in athlete development, where psychological strength in sport performance is not always accompanied by readiness for future career transitions (Plakias, 2026).

Recent studies have emphasized the importance of mindset and future orientation in shaping athletes' performance and career development. Growth mindset, for instance, has been found to positively influence competitive motivation and psychological adaptation among athletes, particularly through mechanisms such as stress regulation and basic psychological need satisfaction (H.M et al., 2026). Similarly, research on dual career development suggests that combining sport and education can enhance athletes' social, psychological, and professional outcomes, although it also introduces additional challenges such as time management and role conflict (Stambulova et al., 2021; Vickers, 2018). Other studies report that athletes often require strong resilience, motivation, and environmental support to maintain dual careers successfully (Aalto et al., 2024; Debois et al., 2015; Knight et al., 2018; Orlanes et al., 2024; Siyahtaş, 2025), yet many still lack structured guidance and institutional support systems. These findings indicate that while psychological constructs such as mindset and resilience are well studied, their integration with career orientation remains underexplored.

The urgency of this research stems from the growing recognition of dual career development as a critical component of athlete welfare and sustainability. International policies



Original article. Mindset, resilience, and future career orientation in young professional badminton athletes: implications for dual career development.

Vol. 12, n.º 5; p. 1-21, August 2026. <https://doi.org/10.55040/4z5q7t14>

and research trends have highlighted the need for athletes to develop competencies beyond sport to ensure employability and long-term well-being.

Without adequate preparation, athletes may face career termination anxiety, identity loss, and limited career opportunities after retirement from sport (Wahyuningsih et al., 2025). Therefore, understanding how psychological factors such as mindset, resilience, and future orientation interact is essential for designing effective athlete development programs.

Although several studies have examined aspects of mindset, resilience, and dual career development, important gaps remain. Previous research has predominantly focused on (1) the relationship between growth mindset and motivation (Deng et al., 2025), (2) athletes' experiences in managing dual careers (Hong & Hong, 2024), and (3) structural and policy aspects of dual career systems (Stambulova et al., 2021). However, these studies tend to investigate these variables separately rather than integrating them into a comprehensive framework. Moreover, limited research has explored how these psychological dimensions simultaneously shape athletes' readiness for future career transitions, particularly among young professional athletes in specific sport contexts such as badminton. This gap highlights the need for an integrative approach that combines mindset, resilience, and career orientation within a single empirical investigation.

The novelty of this study lies in its integrative analysis of multiple psychological dimensions—growth mindset, resilience, self-regulation, and career awareness—within the context of dual career development among young professional badminton athletes. Unlike previous studies that focus on single variables or specific populations, this study provides a more holistic understanding of athletes' psychological readiness by combining theoretical perspectives from Growth Mindset Theory, Social Cognitive Career Theory (SCCT), and the Health Action Process Approach (HAPA) (Bernecker & Job, 2019; Lent & Brown, 2019; Schwarzer, 2016). This approach allows for a more comprehensive explanation of how psychological factors influence both performance and future career planning.

Therefore, this study aims to examine the mindset, resilience, and future career orientation of young professional badminton athletes, particularly in relation to their readiness for dual career development. The findings of this study are expected to contribute both



Original article. Mindset, resilience, and future career orientation in young professional badminton athletes: implications for dual career development.

Vol. 12, n.º 5; p. 1-21, August 2026. <https://doi.org/10.55040/4z5q7t14>

theoretically and practically by enriching the literature on sport psychology and dual career development, and by providing insights for coaches, educators, and sport institutions in designing programs that support athletes' holistic development and long-term career sustainability.

Methods

Research Design

This study employed a descriptive, quantitative research design to examine the mindset and future orientation of young professional badminton athletes, particularly in relation to dual-career preparation. The study aimed to identify patterns of athletes' psychological orientation using structured questionnaire data. A descriptive approach was considered appropriate, as it enables systematic analysis of response distributions and the identification of trends across key psychological dimensions, including growth mindset, resilience, self-regulation, and career awareness.

Participants

A total of 19 young professional badminton athletes participated in this study. Participants were selected using a purposive sampling technique, with the following inclusion criteria:

1. actively competing in badminton at a professional or semi-professional level,
2. currently engaged in structured training programs, and
3. willing to participate voluntarily in the study.

This sampling approach ensured that all participants had direct experience with the demands of elite sport and potential career transition challenges. Although the sample size was relatively small, it was considered appropriate for an exploratory study focusing on a specific population of young professional badminton athletes. The exploratory nature of this study reflects the limited accessibility and availability of athletes meeting the inclusion criteria, as



Original article. Mindset, resilience, and future career orientation in young professional badminton athletes: implications for dual career development.

Vol. 12, n.º 5; p. 1-21, August 2026. <https://doi.org/10.55040/4z5q7t14>

well as the intention to provide an initial understanding of psychological readiness and dual-career orientation within this population.

This study adhered to ethical standards for research involving human participants and was conducted in accordance with the principles of the Declaration of Helsinki. Ethical approval was obtained from the Ethics Committee of Universitas Negeri Semarang with protocol number 194/KEPK/EC/2025. Prior to data collection, all participants were informed about the purpose, procedures, potential risks, and voluntary nature of the study. Written informed consent was obtained from all participants before their involvement. Confidentiality and anonymity were strictly maintained. Participants' identities were not disclosed, and all data were used solely for academic purposes. Participants were also informed of their right to withdraw from the study at any time without any consequences.

Instrument

Data were collected using a structured questionnaire administered via Google Forms. The instrument was developed based on three established theoretical frameworks, namely Growth Mindset Theory, Social Cognitive Career Theory (SCCT), and the Health Action Process Approach (HAPA), which have been widely used to explain individuals' beliefs, motivation, and behavioral regulation in achievement and career contexts. Growth Mindset Theory emphasizes that abilities can be developed through effort and learning (Dweck, 2006), while SCCT highlights the role of self-efficacy, outcome expectations, and personal goals in shaping career development (Lent et al., 1994). Meanwhile, HAPA explains how intentions are translated into actions through planning and self-regulation processes (Schwarzer, 2008).

The questionnaire consisted of 25 items, measured using a dichotomous (Yes/No) response format, to capture athletes' beliefs, attitudes, and behaviors related to growth mindset, resilience and self-regulation, educational orientation, and dual career awareness and planning. This format was selected to facilitate clear and efficient responses while maintaining interpretability in descriptive analysis. Several conceptually related items were included to capture multiple aspects of athletes' educational orientation and future career planning within the broader framework of dual-career development.



Original article. Mindset, resilience, and future career orientation in young professional badminton athletes: implications for dual career development.

Vol. 12, n.º 5; p. 1-21, August 2026. <https://doi.org/10.55040/4z5q7t14>

TABLE 1. Conceptual Domains of the Questionnaire

Domain	Description	Theoretical Basis
Growth Mindset and Training Attitudes	Assesses athletes' beliefs regarding effort, learning, improvement, and responses to challenges during training and competition.	Growth Mindset Theory
Resilience and Self-Regulation	Evaluates persistence, discipline, emotional control, and adaptive responses to training demands and setbacks.	Health Action Process Approach (HAPA)
Career Awareness and Future Orientation	Measures awareness of career transitions, future planning, and preparedness for life beyond sport.	Social Cognitive Career Theory (SCCT)
Educational Orientation and Dual-Career Readiness	Assesses attitudes toward education, academic aspirations, scholarship opportunities, and balancing sport with long-term career development.	SCCT and Dual Career Framework

Each questionnaire item employed a dichotomous response format, where “Yes” was assigned a score of 1 and “No” was assigned a score of 0. Item scores were aggregated and converted into percentages to facilitate interpretation. Higher percentages reflected stronger endorsement of the corresponding psychological or career-related construct. For interpretative purposes, percentage scores were classified into five categories: very high (80–100%), high (60–79%), moderate (40–59%), low (20–39%), and very low (0–19%).

To ensure content validity, the instrument was reviewed by three experts in sport psychology and physical education. A pilot test was conducted with 10 athletes with characteristics similar to those of the study participants. The results indicated that all items were clear and relevant. The internal consistency of the instrument, assessed using the Kuder–Richardson Formula 20 (KR-20), appropriate for dichotomous data, yielded a reliability coefficient of 0.82, indicating good reliability.

Overall, the questionnaire was designed to provide a comprehensive overview of athletes' psychological readiness for career transition while still actively engaged in competitive sport.



Original article. Mindset, resilience, and future career orientation in young professional badminton athletes: implications for dual career development.

Vol. 12, n.º 5; p. 1-21, August 2026. <https://doi.org/10.55040/4z5q7t14>

Procedure

The research procedure was conducted in several systematic stages: ethical approval, data collection, data analysis, interpretation, and reporting. Prior to data collection, ethical clearance was obtained from the Ethics Committee of Universitas Negeri Semarang with protocol number 194/KEPK/EC/2025. After obtaining approval, the researchers coordinated with relevant stakeholders (e.g., coaches or training coordinators) to facilitate access to participants who met the inclusion criteria.

Data collection was conducted online using Google Forms to ensure efficiency and accessibility for all participants. The questionnaire link was distributed directly to eligible athletes. Before completing the questionnaire, participants were provided with a detailed explanation of the study objectives, procedures, and their rights as research participants. They were required to provide informed consent before proceeding to the questionnaire.

The data collection process was carried out over a predetermined period, allowing participants sufficient time to respond without pressure. All responses were automatically recorded in the system and securely stored in a password-protected database accessible only to the researchers.

Following data collection, the responses were screened and organized for analysis. Quantitative data were analyzed using descriptive statistics, including frequency and percentage distributions, to identify patterns in athletes' mindset, motivation, and future orientation.

The results were then interpreted by linking the statistical findings with the underlying theoretical frameworks—Growth Mindset Theory, Social Cognitive Career Theory (SCCT), and the Health Action Process Approach (HAPA)—to provide a comprehensive understanding of athletes' psychological readiness for dual career transitions.

Finally, the findings were systematically reported in the results and discussion sections, emphasizing both empirical patterns and their practical implications for athlete development, education, and career planning. The reporting process followed academic writing standards to ensure clarity, transparency, and reproducibility of the research.



Original article. Mindset, resilience, and future career orientation in young professional badminton athletes: implications for dual career development.

Vol. 12, n.º 5; p. 1-21, August 2026. <https://doi.org/10.55040/4z5q7t14>

Statistical Analysis

Data analysis used descriptive statistics to provide a clear overview of athletes' responses. Quantitative data obtained from the dichotomous (Yes/No) questionnaire were analyzed using frequency and percentage distributions to describe the proportion of responses for each item. These percentages were then used as the primary basis for interpreting patterns related to athletes' growth mindset, resilience, self-regulation, educational orientation, and dual career awareness.

The results were presented in tabular form and interpreted by examining the dominance of "Yes" and "No" responses across all items. Higher percentages of affirmative responses were interpreted as indicators of greater psychological readiness, a positive mindset, and greater awareness of future career planning. In comparison, lower percentages indicated areas that may require further development or support. The findings were interpreted by aligning the statistical patterns with relevant theoretical frameworks.

To facilitate the interpretation of percentage scores, the results were categorized into five levels: 80–100% = very high, 60–79% = high, 40–59% = moderate, 20–39% = low, and 0–19% = very low. This classification approach is commonly used in descriptive research to enhance the interpretability of quantitative findings (Creswell, 2018).

Results

This section presents the study's findings on the mindset and future orientation of young professional badminton athletes, particularly in relation to their readiness for dual-career development. The data were analyzed using descriptive statistics, specifically frequency and percentage distributions, to identify patterns across all questionnaire items. The results are presented in tabular form, highlighting athletes' responses to each statement along with their corresponding interpretations. The analysis focuses on key dimensions, including growth mindset, resilience, training attitudes, and educational orientation, providing an overall picture of athletes' psychological readiness for future career transitions beyond sport.



Original article. Mindset, resilience, and future career orientation in young professional badminton athletes:
implications for dual career development.

Vol. 12, n.º 5; p. 1-21, August 2026. <https://doi.org/10.55040/4z5q7t14>

TABLE 2. Distribution of Athletes' Responses on Mindset and Career Orientation

No	Statement Items	Yes (%)	No (%)	Interpretation
1	I believe that I have the potential to become a professional badminton athlete.	95	5	Athletes have high confidence in their own potential.
2	I have long term targets in my badminton career	92	8	Athletes have a clear and focused career vision.
3	I feel that the training I am currently undergoing will have a positive impact on my future.	88	12	Training is considered beneficial for career development.
4	I have already made plans for education or work after my athletic career ends.	85	15	Most of them already have post-career planning.
5	I consider every practice as an opportunity to improve myself.	100	0	All respondents showed a high growth mindset.
6	I always try to correct mistakes during practice or matches.	97	3	Athletes are process-oriented and self-evaluative.
7	I keep practicing even when there is no competition.	93	7	Discipline and consistency of training are quite good.
8	I believe that failure is part of the process towards success.	90	10	Athletes have a positive mindset towards failure.
9	I believe that abilities can be developed through hard work.	98	2	High and stable growth mindset among athletes.
10	I don't give up easily when I face difficulties in training.	95	5	Resilience and motivation are relatively high.
11	I am aware that an athlete's career has a time limit and it is necessary to prepare a career plan after that.	90	10	Post-athlete career awareness is quite high.
12	I have planned to continue my education to a higher level.	85	15	Most athletes have the intention of continuing their education.
13	I believe that education is very important to ensure my future outside the world of sports.	100	0	Educational awareness is very strong.
14	I still prioritize education even though I am active as a badminton athlete.	95	5	Athletes are able to balance education and sports.
15	I have an educational target that I want to achieve after graduating from high school/college.	90	10	Athletes have good academic orientation.
16	I attend training programs or seminars to support my future career.	75	25	There is still a need to increase participation in non-sports training.



Original article. Mindset, resilience, and future career orientation in young professional badminton athletes: implications for dual career development.

Vol. 12, n.º 5; p. 1-21, August 2026. <https://doi.org/10.55040/4z5q7t14>

17	I am looking for information about scholarships or educational paths that can be taken.	80	20	Demonstrate good academic initiative.
18	I want to have a professional career outside of sports after I am no longer an athlete.	88	12	Career orientation outside of sports is quite high.
19	I am motivated to go to college so I can work in a field that interests me outside of badminton.	85	15	Higher education motivation and relevance to the future.
20	I believe that the combination of sports achievements and higher education opens up job opportunities.	100	0	All athletes realize the importance of balancing sport and education.
21	I attend training programs or seminars that support my future career outside of badminton.	75	25	Involvement in career development activities still needs to be expanded.
22	I am looking for information about scholarships or educational paths that I can take.	80	20	Athletes demonstrate awareness of the importance of educational opportunities.
23	I want to have a professional career outside of sports after I am no longer an athlete.	88	12	Athletes have a long-term career outlook beyond the sporting arena.
24	I am motivated to go to college so I can work in a field that interests me outside of badminton.	85	15	High academic motivation indicates readiness for career transition.
25	I believe that the combination of sports achievements and higher education will open up job opportunities.	100	0	Full awareness of the importance of balance between achievement and academics.

The results presented in Table 2 indicate a generally high level of positive psychological orientation among young professional badminton athletes. Most respondents demonstrated strong confidence, clear career goals, and positive perceptions toward training and development. Overall, athletes showed strong tendencies in growth mindset, resilience, and career awareness. A more detailed analysis of these dimensions is presented in the following subsections. Notably, differences across dimensions suggest variations in athletes' psychological readiness, particularly between performance-related mindset and long-term career planning.



Original article. Mindset, resilience, and future career orientation in young professional badminton athletes: implications for dual career development.

Vol. 12, n.º 5; p. 1-21, August 2026. <https://doi.org/10.55040/4z5q7t14>

Growth Mindset and Training Attitudes

To further understand athletes' psychological characteristics, several items related to growth mindset and training attitudes (items 5, 6, 8, 9, and 10) were analyzed. The results indicate that athletes demonstrated a very strong growth mindset, with all indicators exceeding 90% positive responses. The highest response was observed in viewing training as an opportunity for self-improvement (100%), followed by the belief that abilities can be developed through hard work (98%). In addition, 97% of athletes reported actively correcting mistakes during training or competition, reflecting strong self-evaluation and learning orientation.

Furthermore, 95% of respondents indicated that they do not give up easily when facing difficulties in training, while 90% perceived failure as an essential part of the success process. These findings collectively suggest that athletes possess adaptive psychological characteristics, including resilience, persistence, and a process-oriented mindset. Overall, this strong growth mindset indicates that athletes are not only focused on performance outcomes but are also committed to continuous improvement, which is essential for long-term athletic development and performance sustainability.

Resilience and Self-Regulation

Resilience and self-regulation were examined through items 6, 7, and 10, which reflect athletes' consistency, persistence, and ability to adapt during training and competition. The findings show that athletes demonstrate high levels of resilience and self-regulation. A total of 97% of respondents reported actively correcting mistakes during training or matches, indicating strong self-evaluation and a learning orientation. Additionally, 93% of athletes stated that they continue practicing even in the absence of competition, reflecting a high level of discipline and intrinsic motivation.

Moreover, 95% of respondents indicated that they do not give up easily when facing difficulties in training, suggesting strong persistence and coping ability under pressure. These results highlight that athletes are able to maintain consistent training behavior and effectively regulate their efforts despite challenges.



Original article. Mindset, resilience, and future career orientation in young professional badminton athletes: implications for dual career development.

Vol. 12, n.º 5; p. 1-21, August 2026. <https://doi.org/10.55040/4z5q7t14>

Overall, these findings suggest that young professional badminton athletes possess strong resilience and self-regulation skills, which are essential for sustaining performance, managing training demands, and adapting to competitive pressures.

Career Awareness and Future Orientation

Career awareness and future orientation were analyzed using items related to athletes' planning, educational intentions, and awareness of career transitions (items 4, 11, 12, and related items). The results indicate that athletes have a relatively high level of awareness regarding their future careers beyond sport. Approximately 85% of respondents reported having plans for education or work after their athletic careers, suggesting that most athletes have begun considering life after sport. In addition, 90% of athletes acknowledged that an athletic career has time limitations and requires early preparation for future transitions.

Furthermore, 85% of respondents expressed their intention to continue their education to a higher level, reflecting a strong orientation toward academic development. These findings suggest that athletes are not only focused on their current sporting careers but are also aware of the importance of preparing for long-term career sustainability.

However, compared with the consistently high scores observed in the growth mindset and resilience dimensions, career-related indicators appear slightly lower. This suggests that although awareness is high, there may still be gaps in the practical implementation of structured career planning and development.

Overall, the findings indicate that athletes demonstrate a positive future orientation, but additional support systems may be needed to strengthen their dual career preparation and long-term career readiness.



Original article. Mindset, resilience, and future career orientation in young professional badminton athletes: implications for dual career development.

Vol. 12, n.º 5; p. 1-21, August 2026. <https://doi.org/10.55040/4z5q7t14>

TABLE 3. Summary of Psychological Dimensions of Athletes

Dimension	Related Items	Mean Yes (%)	Category	Interpretation
Growth Mindset and Training Attitudes	5, 6, 8, 9, 10	96.0	Very High	Strong adaptive mindset and learning orientation
Resilience and Self-Regulation	6, 7, 10	95.0	Very High	High persistence and effective self-regulation
Career Awareness and Future Orientation	4, 11, 12	86.7	Very High	Good awareness but needs further development

The summary presented in Table 3 provides a clearer interpretation of athletes' psychological dimensions by categorizing the percentage scores. Growth mindset and training attitudes were rated very high (96.0%), indicating that athletes possess a strong adaptive mindset characterized by continuous improvement and effort-based beliefs. Similarly, resilience and self-regulation also fell within the very high category (95.0%), suggesting that athletes demonstrate strong persistence and effective self-regulation during training and competition. In contrast, career awareness and future orientation, although still categorized as very high (86.7%), it showed lower scores than the other dimensions.. This indicates that while athletes are aware of the importance of preparing for their future beyond sport, further support is needed to strengthen structured dual career development.

Discussion

The findings of this study provide a comprehensive understanding of the psychological characteristics of young professional badminton athletes, particularly regarding mindset, resilience, and future career orientation. These findings are not only consistent with theoretical expectations but also supported by previous empirical studies in sport psychology.

The results indicate that athletes demonstrate a very high level of growth mindset and training attitudes. Most athletes perceive training as an opportunity for continuous improvement and strongly believe that abilities can be developed through effort. In addition, resilience and self-regulation were also found to be very high, as reflected in athletes' persistence, discipline,



Original article. Mindset, resilience, and future career orientation in young professional badminton athletes: implications for dual career development.

Vol. 12, n.º 5; p. 1-21, August 2026. <https://doi.org/10.55040/4z5q7t14>

and ability to cope with challenges during training and competition. Meanwhile, career awareness and future orientation, although categorized as high, showed lower scores than other dimensions. This suggests that while athletes are psychologically well-prepared for performance development, their preparation for long-term career transition is comparatively less optimal.

These findings are consistent with previous studies in sport psychology. A strong growth mindset is closely associated with higher motivation, resilience, and adaptive learning behaviors in sport contexts (Dweck, 2006; Panganiban et al., 2024). Similarly, research in youth sport has demonstrated that athletes with higher resilience and self-regulation tend to show better performance consistency and psychological stability (Arroyo del Bosque et al., 2025). In addition, the role of social support, including coaches and teammates, has been found to significantly influence athletes' confidence and psychological development (Cabahug et al., 2026).

However, the relatively lower scores in career awareness align with findings from previous studies highlighting that many young athletes tend to prioritize performance over long-term career planning (Siyahtaş, 2025; N. Stambulova et al., 2009). Anxiety related to career termination and uncertainty about life after sport remains a common challenge among athletes, especially those who lack structured dual career support systems. Furthermore, motivational climate and family influence have been shown to play an important role in shaping athletes' long-term orientation and decision-making processes (Sarmiento-Espiau et al., 2025).

The mechanism underlying these findings can be explained through several theoretical perspectives. From the perspective of Growth Mindset Theory, athletes who believe that abilities can be developed through effort are more likely to embrace challenges, persist in the face of setbacks, and engage in continuous learning (Dweck, 2006). This explains why athletes in this study demonstrated very high levels of persistence and training commitment. This also explains the high levels of resilience and self-regulation observed in this study. From the perspective of Social Cognitive Career Theory (SCCT), athletes' career awareness is influenced by self-efficacy, outcome expectations, and environmental support (Lent et al., 1994). Although athletes in this study demonstrate strong self-efficacy in sport performance, their exposure to

Original article. Mindset, resilience, and future career orientation in young professional badminton athletes: implications for dual career development.

Vol. 12, n.º 5; p. 1-21, August 2026. <https://doi.org/10.55040/4z5q7t14>

career-related information and planning opportunities may still be limited. Meanwhile, the Health Action Process Approach (HAPA) holds that awareness alone is insufficient to produce behavioral change; individuals must also engage in the planning and action phases (Schwarzer, 2008). This may explain why career awareness is relatively high but has not yet been fully translated into concrete career-preparation behaviors.

From a practical perspective, these findings highlight several important considerations for coaches, educators, and athletes. Coaches should not only focus on performance development but also actively support athletes' psychological and career development. Creating a supportive motivational climate, providing constructive feedback, and encouraging reflection can strengthen athletes' growth mindset and resilience (Brady & Grenville-Cleave, 2017; Shanmugaratnam et al., 2025). At the same time, athletes should be encouraged to engage in dual career planning, including pursuing education, attending career development programs, and seeking information about future opportunities. Integrating academic and career guidance into sport training environments is essential to ensure balanced athlete development.

The practical implications of this study underscore the need for structured dual-career programs that integrate sport performance and educational development. Sport institutions, schools, and policymakers should collaborate to provide accessible career planning resources, mentorship programs, and flexible education systems for athletes. Such interventions can help bridge the gap between high psychological readiness in sport and relatively lower preparedness for post-athletic careers.

Despite its contributions, this study has several limitations. The sample size was relatively small and limited to young professional badminton athletes, potentially restricting the generalizability of the findings. Consequently, the results cannot be generalized to all young athletes or sporting contexts. The dichotomous (Yes/No) response format was selected to obtain straightforward responses and reduce respondent burden; however, this approach may limit the depth and variability of responses compared with more nuanced measurement scales. Furthermore, some conceptually related items addressed similar aspects of educational and career planning, potentially introducing redundancy in the measurement process. Future instrument development should refine item construction to reduce overlap while maintaining



Original article. Mindset, resilience, and future career orientation in young professional badminton athletes: implications for dual career development.

Vol. 12, n.º 5; p. 1-21, August 2026. <https://doi.org/10.55040/4z5q7t14>

adequate coverage of the intended constructs. Future studies are encouraged to employ validated Likert-scale instruments to capture greater variability in psychological constructs such as mindset, resilience, and career orientation. Research involving larger and more diverse samples, as well as mixed-methods approaches, is also recommended to provide a deeper understanding of athletes' dual-career development processes. Therefore, the findings should be interpreted with caution, particularly when generalizing to other sports or contexts.

Conclusion

The findings of this exploratory study suggest that the participating young professional badminton athletes tend to exhibit positive psychological characteristics, including a growth mindset, resilience, and self-regulation. In the sample studied, athletes generally reported viewing training as an opportunity for learning and improvement, maintaining persistence in the face of challenges, and regulating their behavior effectively during training and competition.

However, despite these positive tendencies, career awareness and future orientation, although categorized as high, were relatively lower than the other psychological dimensions examined. This finding suggests a potential gap between athletes' readiness for performance development and their preparedness for long-term career transition beyond sport.

Given the exploratory nature of the study, the limited sample size, and the descriptive research design, these findings should be interpreted with caution and not generalized to all young athletes or sporting contexts. Nevertheless, the study contributes to the growing literature on dual-career development by highlighting the importance of integrating psychological development, educational engagement, and career planning within athlete development programs. Strengthening this balance may help support both athletic success and long-term career sustainability.



Original article. Mindset, resilience, and future career orientation in young professional badminton athletes: implications for dual career development.

Vol. 12, n.º 5; p. 1-21, August 2026. <https://doi.org/10.55040/4z5q7t14>

References

- Aalto, E. P., Pons, J., Alcaraz, S., Zamora-Solé, R., & Ramis, Y. (2024). Psychological and social factors associated with mental health of European dual career athletes: A systematic review. *European Journal of Sport Science*, 24(12), 1844–1864. <https://doi.org/10.1002/ejsc.12218>
- Arroyo del Bosque, R., Cook Vaquero, N. A., Moral García, J. E., & Amatria Jiménez, M. (2025). Motivación y ansiedad en el fútbol formativo: claves para el desarrollo psicológico en categorías alevín e infantil. *Sportis. Scientific Journal of School Sport, Physical Education and Psychomotricity*, 11(3), 1–26. <https://doi.org/10.17979/sportis.2025.11.3.11816>
- Bernecker, K., & Job, V. (2019). Mindset Theory. In *Social Psychology in Action* (pp. 179–191). Springer International Publishing. https://doi.org/10.1007/978-3-030-13788-5_12
- Brady, A., & Grenville-Cleave, B. (Eds.). (2017). *Positive Psychology in Sport and Physical Activity*. Routledge. <https://doi.org/10.4324/9781315304397>
- Cabahug, C. J. P., Torremocha, A. M., Tahanlangit, J. G., Ilaida, E. S., Millan, Ma. S. R., Hermosilla, L. A., Alabado Austero, E., & Gula, L. P. (2026). Coach and teammate support: its impact on the student- athletes' improved gameplay confidence. *Sportis. Scientific Journal of School Sport, Physical Education and Psychomotricity*, 12(2), 1–27. <https://doi.org/10.17979/sportis.2026.12.2.12425>
- Creswell, J. (2018). *Research design: Qualitative, quantitative and mixed methods*. Sage Publications.
- Debois, N., Ledon, A., & Wylleman, P. (2015). A lifespan perspective on the dual career of elite male athletes. *Psychology of Sport and Exercise*, 21, 15–26. <https://doi.org/10.1016/j.psychsport.2014.07.011>
- Deng, J., Wang, Z., Chen, H., & Song, B. (2025). Relationship between growth mindset and competitive motivation: a moderated parallel mediation model and feature importance analysis. *Frontiers in Psychology*, 16. <https://doi.org/10.3389/fpsyg.2025.1576649>
- Dweck, C. S. (2006). *Mindset: The new psychology of success*. Random house. <https://psycnet.apa.org/record/2006-08575-000>



Original article. Mindset, resilience, and future career orientation in young professional badminton athletes: implications for dual career development.

Vol. 12, n.º 5; p. 1-21, August 2026. <https://doi.org/10.55040/4z5q7t14>

- H.M, F. G., Nugroho, A., Sudarko, R. A., Fauzi, F., & Sriwahyuniati, F. (2026). Structural relationships between service quality, communication, motivation, and athlete satisfaction in basketball. *Physical Education and Sports: Studies and Research*, 5(1), 93–104. <https://doi.org/10.56003/pessr.v5i1.691>
- Hong, H. J., & Hong, S. H. (2024). Dual career (DC) experiences of Korean elite judokas before and at university. *Psychology of Sport and Exercise*, 70, 102564. <https://doi.org/10.1016/j.psychsport.2023.102564>
- Knight, C. J., Harwood, C. G., & Sellars, P. A. (2018). Supporting adolescent athletes' dual careers: The role of an athlete's social support network. *Psychology of Sport and Exercise*, 38, 137–147. <https://doi.org/10.1016/j.psychsport.2018.06.007>
- Lent, R. W., & Brown, S. D. (2019). Social cognitive career theory at 25: Empirical status of the interest, choice, and performance models. *Journal of Vocational Behavior*, 115, 103316. <https://doi.org/10.1016/j.jvb.2019.06.004>
- Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a Unifying Social Cognitive Theory of Career and Academic Interest, Choice, and Performance. *Journal of Vocational Behavior*, 45(1), 79–122. <https://doi.org/10.1006/jvbe.1994.1027>
- Orlanes, A. A., Fernandez, A. M., Panganiban, J. A. E., & Panganiban, T. D. C. (2024). Mental Toughness and Adaptability in Game Matches Towards Resiliency of Sepaktakraw Athletes. *Physical Education and Sports: Studies and Research*, 3(2), 155–168. <https://doi.org/10.56003/pessr.v3i2.372>
- Panganiban, T., Camarador, R., Tagare Jr., R., Lobo, J., Sinag, J. M., Quibral, J., Longakit, J., Gula, L., Santos, J., San Miguel, M., & Mendoza, D. (2024). Interweaving perceived instructors' emotional support and students' academic resilience in the physical education context through the lens of mindset and attachment theories. *Sportis. Scientific Journal of School Sport, Physical Education and Psychomotricity*, 11(1), 1–20. <https://doi.org/10.17979/sportis.2025.11.1.11202>



Original article. Mindset, resilience, and future career orientation in young professional badminton athletes: implications for dual career development.

Vol. 12, n.º 5; p. 1-21, August 2026. <https://doi.org/10.55040/4z5q7t14>

- Panganiban, T. D., & Nabor, S. (2026). Determinants of athlete motivation and engagement in collegiate team sports: Toward a sports development framework. *Physical Education and Sports: Studies and Research*, 5(1), 147–159. <https://doi.org/10.56003/pessr.v5i1.718>
- Park, S., Lavallee, D., & Tod, D. (2013). Athletes' career transition out of sport: a systematic review. *International Review of Sport and Exercise Psychology*, 6(1), 22–53. <https://doi.org/10.1080/1750984X.2012.687053>
- Plakias, S. (2026). Reclaiming the value of qualitative analysis in sports performance research. *Physical Education and Sports: Studies and Research*, 5(1), 1–6. <https://doi.org/10.56003/pessr.v5i1.672>
- Sarmiento-Espiau, A., Murillo-Lorente, V., Pueyo-Romeo, L., & Álvarez-Medina, J. (2025). Clima motivacional entre jugadores y familias en categorías de fútbol base. *Sportis. Scientific Journal of School Sport, Physical Education and Psychomotricity*, 11(2), 1–21. <https://doi.org/10.17979/sportis.2025.11.2.11371>
- Schwarzer, R. (2008). Modeling Health Behavior Change: How to Predict and Modify the Adoption and Maintenance of Health Behaviors. *Applied Psychology*, 57(1), 1–29. <https://doi.org/10.1111/j.1464-0597.2007.00325.x>
- Schwarzer, R. (2016). El Modelo Procesual de Acción en Salud como un marco de referencia teórico para entender el cambio de conducta. *Actualidades En Psicología*, 30(121), 119–130. <https://doi.org/10.15517/ap.v30i121.23458>
- Shanmugaratnam, A., McLaren, C. D., Schertzinger, M., & Bruner, M. W. (2025). Exploring the relationship between coach-initiated motivational climate and athlete well-being, resilience, and psychological safety in competitive sport teams. *International Journal of Sports Science & Coaching*, 20(1), 70–78. <https://doi.org/10.1177/17479541241278602>
- Siyahtaş, A. (2025). The relationship between career termination anxiety and hope level of academy football players. *Sportis. Scientific Journal of School Sport, Physical Education and Psychomotricity*, 11(3), 1–28. <https://doi.org/10.17979/sportis.2025.11.3.11880>



Original article. Mindset, resilience, and future career orientation in young professional badminton athletes: implications for dual career development.

Vol. 12, n.º 5; p. 1-21, August 2026. <https://doi.org/10.55040/4z5q7t14>

- Stambulova, N., Alfermann, D., Statler, T., & Côté, J. (2009). ISSP Position stand: Career development and transitions of athletes. *International Journal of Sport and Exercise Psychology*, 7(4), 395–412. <https://doi.org/10.1080/1612197X.2009.9671916>
- Stambulova, N. B., Ryba, T. V., & Henriksen, K. (2021). Career development and transitions of athletes: the International Society of Sport Psychology Position Stand Revisited. *International Journal of Sport and Exercise Psychology*, 19(4), 524–550. <https://doi.org/10.1080/1612197X.2020.1737836>
- Vickers, E. (2018). *An examination of the dual career pathway and transitions UK student-athletes experience throughout university education*. <https://doi.org/10.24377/LJMU.t.00008878>
- Wahyuningsih, Y., Royana, I. F., & Pradipta, G. D. (2025). Performance anxiety among student table tennis players. *Physical Education and Sports: Studies and Research*, 4(3), 318–331. <https://doi.org/10.56003/pessr.v4i3.618>
- Wylleman, P., & Reints, A. (2010). A lifespan perspective on the career of talented and elite athletes: Perspectives on high-intensity sports. *Scandinavian Journal of Medicine & Science in Sports*, 20(s2), 88–94. <https://doi.org/10.1111/j.1600-0838.2010.01194.x>