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High Prevalence of Eating Disorder Risk and Inadequate Energy Intake Among University Athletes: A Cross-Sectional Analysis Across Sports Disciplines

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Abstract

Disordered eating behaviours and inadequate energy intake are increasingly recognized as critical concerns among athletes, with potential consequences for health, recovery, and athletic performance. University athletes may be particularly vulnerable due to the combined demands of academic and sporting commitments. This study aimed to determine the prevalence of eating disorder risk and examine daily energy intake patterns among university athletes across different sports categories. A cross-sectional study was conducted among 76 university athletes representing ball games, endurance sports, and aesthetic or weight-category sports. Risk of eating disorders was assessed using the Eating Attitudes Test (EAT-26), while dietary intake was evaluated through 24-hour dietary recall. Descriptive statistics were used to characterize eating disorder risk and daily energy intake. Pearson correlation analysis was performed to examine the relationship between EAT-26 scores and daily energy intake. Overall, 38.2% of athletes were identified as being at high risk of eating disorders based on EAT-26 scores. The highest prevalence was observed among athletes participating in aesthetic and weight-category sports (73.3%), indicating a substantially greater vulnerability compared with other sport disciplines. Mean daily energy intake was 1309.3 ± 404.4 kcal/day for ball-game athletes, 1472.2 ± 366.7 kcal/day for endurance athletes, and 1349.8 ± 347.6 kcal/day for athletes in aesthetic and weight-category sports. Across all sports categories, reported energy intake was considerably below recommended levels for competitive athletes. No significant association was found between EAT-26 scores and daily energy intake ($p > 0.05$). A substantial proportion of university athletes, particularly those engaged in aesthetic and weight-category sports, are at elevated risk of eating disorders while simultaneously reporting inadequate energy intake. These findings highlight the need for targeted screening, nutrition education, and multidisciplinary intervention strategies to promote optimal health, prevent disordered eating behaviours, and support athletic performance.

Keywords: Athletic performance, eating attitudes test (EAT-26), eating disorder, energy intake, university athletes.

Introduction

Eating disorders are characterized by disturbances in eating-related behaviours and attitudes that adversely affect dietary intake, physical performance and psychological functioning (Joy et al., 2016). Within the athletic population, eating disorders represent important health concerns because the physiological and psychological demands of competitive sport may increase vulnerability to maladaptive eating practices. Early nutritional assessment and screening are therefore essential for identifying athletes at risk and facilitating timely intervention. However, the risk is not uniform across sporting disciplines, as athletes participating in sports that emphasize leanness, impose weight classifications, or evaluate physical appearance may experience greater pressure to regulate body weight and composition (Petisco-Rodriguez et al., 2020). These sport-specific demands highlight the importance of investigating eating disorder risk within different athletic populations.

Body image concerns, psychological characteristics, and sport-related pressures are among the factors associated with disordered eating behaviours in athletes. Female athletes may experience considerable pressure to conform to sport-specific body ideals, potentially contributing to body dissatisfaction and unhealthy dietary practices. Previous research has identified an association between body dissatisfaction and eating disorder risk, particularly among adolescent athletes involved in leanness-oriented disciplines such as gymnastics and dance (Borowiec et al., 2023). Nevertheless, eating disorders should not be considered exclusively a concern among female athletes. Male athletes may also experience body image dissatisfaction and performance-related pressures, although these concerns may manifest differently according to gender and sporting context. Male athletes may be more concerned with muscularity and body composition, whereas female athletes may experience greater pressure to attain a lean physique (Petisco-Rodriguez et al., 2020). In addition, perfectionistic tendencies and the perceived need to control body weight and shape may intensify the relationship between performance expectations and maladaptive eating behaviours (Arthur et al., 2011; Fatt et al., 2024). Collectively, these findings suggest that eating disorder risk among athletes reflects the interaction of individual psychological characteristics, body image perceptions, and the demands of competitive sport.

The nature and magnitude of these pressures may also differ across sporting disciplines. Athletes participating in aesthetic sports and weight-category sports may be particularly vulnerable because body composition, appearance, or compliance with prescribed weight limits can influence competitive participation and performance evaluation. In contrast, the pressures experienced by athletes in team sports may differ according to performance requirements and sport-specific expectations. Previous studies have reported differences in eating disorder risk across sporting disciplines, underscoring the need to consider the competitive environment when examining disordered eating behaviours (Borowiec et al., 2023; Mari-Sanchis et al., 2021). Such differences are important because sport-specific expectations may normalize restrictive eating, excessive weight-control practices, or other behaviours that compromise athletes' nutritional adequacy. Accordingly, examining eating disorder risk without considering the characteristics of the sporting population may overlook relevant variations in vulnerability.

The consequences of eating disorders and associated disordered eating behaviours extend beyond psychological well-being and may compromise both athletic performance and long-term health. Inadequate energy intake relative to exercise expenditure can result in low energy availability, potentially impairing physiological function, recovery, endurance, and strength. Persistent nutritional inadequacy may also contribute to fatigue, loss of lean body mass, impaired bone health, and increased susceptibility to injury. Among female athletes, menstrual dysfunction and reduced bone mineral density are particularly important concerns. These manifestations are associated with the female athlete triad, a clinical framework comprising low energy availability, with or without disordered eating, menstrual dysfunction, and impaired bone health (El Ghoch et al., 2013; Joy, 2022). Although the manifestations and consequences may differ between individuals and across genders, these concerns demonstrate the importance of identifying problematic eating behaviours before they progress to more serious health complications. Systematic screening and appropriate nutritional support may therefore contribute to the protection of athletes' health and the maintenance of sustainable athletic performance.

Despite growing recognition of eating disorders as a concern in competitive sports, evidence concerning eating disorder risk among university athletes in Sabah, Malaysia, remains limited. This geographical and population-specific evidence gap restricts understanding of the extent of the problem within the local sporting context and may hinder the development of appropriately targeted screening and preventive strategies. Furthermore, findings from athletes in other settings may not fully reflect the characteristics, sporting environments, and nutritional challenges experienced by university athletes in Sabah. Addressing this gap is therefore important for establishing an evidence base to inform athlete health monitoring and support services. Therefore, the present study aims to assess eating disorder risk among university athletes in Sabah, Malaysia. The findings are expected to provide context-specific evidence to support early identification of at-risk athletes and inform the development of targeted nutritional education, screening, and intervention strategies to safeguard athlete health and well-being.

Methodology

Study Design and Participants

A cross-sectional study was conducted to assess eating disorder risk and daily energy intake among athletes at Universiti Malaysia Sabah (UMS), Malaysia. The study participants comprised university athletes who actively represented UMS in various sporting disciplines. A total of 76 athletes who met the eligibility criteria participated in the study. Eligible participants were aged 18 years or older and actively represented the university in competitive sports. Athletes with serious injuries, chronic diseases that could affect nutritional status, or incomplete questionnaires were excluded from the analysis.

Sociodemographic Characteristics, Physical Activity and Anthropometry measurement

Sociodemographic information, including age, sex, ethnicity, and sporting discipline, was collected using a structured questionnaire. Physical activity levels were assessed using the International Physical Activity Questionnaire–Short Form (IPAQ-SF). Only athletes classified as physically active according to the IPAQ-SF criteria were included in the study. Anthropometric measurements were ob-

tained to assess participants' body composition-related indicators. Body weight was measured using a calibrated digital weighing scale, while standing height was measured using a stadiometer. Body mass index (BMI) was calculated as body weight in kilograms divided by the square of height in metres (kg/m²). BMI categories were assigned according to the World Health Organization (WHO) classification.

Assessment of Eating Disorder Risk and dietary intake

Eating disorder risk was assessed using the 26-item Eating Attitudes Test (EAT-26), a standardised screening instrument designed to evaluate eating-related attitudes and behaviours associated with eating disorders. The questionnaire comprises 26 items, and a total score of 20 or higher was used to identify participants at elevated risk of eating disorders. Dietary intake was assessed using a 24-hour dietary recall to measure participants' daily energy intake. Information on foods and beverages consumed during the preceding 24 hours was collected and analysed using the Malaysian Food Composition Database (MyFCD). Total daily energy intake was expressed in kilocalories per day (kcal/day). This assessment provided a dietary energy intake for examining its relationship with eating disorders risk.

Statistical Analysis

All statistical analyses were performed using IBM SPSS Statistics, version 28.0. Descriptive statistics were used to summarise participants' sociodemographic characteristics, physical activity levels, dietary energy intake, anthropometric measurements, and EAT-26 scores. Categorical variables were presented as frequencies and percentages, whereas continuous variables were summarised using means and standard deviations, as appropriate to their distributions. The Shapiro–Wilk test was used to assess the normality of continuous variables. Spearman's rank correlation coefficient (r_s) was employed to examine the association between total daily energy intake and EAT-26 total scores. Statistical significance was set at $p<0.05$, and all tests were evaluated using the specified significance threshold.

Results and Discussion

Sociodemographic and Sporting Characteristics of Participants

A total of 76 university athletes participated in this study, with a reported mean age of 23 years and an overall mean body mass index (BMI) of 20.70 ± 2.48 kg/m². The sample comprised equal proportions of male and female athletes (50.0% each; n = 38). Regarding sporting discipline, ball-game athletes represented the largest proportion of participants (63.2%; n = 48), followed by athletes participating in aesthetic and weight-category sports (19.7%; n = 15) and endurance sports (17.1%; n = 13). Mean BMI differed slightly across sporting disciplines. Ball-game athletes had a mean BMI of 20.90 ± 2.78 kg/m², compared with 20.74 ± 1.94 kg/m² among endurance athletes and 20.04 ± 1.74 kg/m² among athletes in aesthetic and weight-category sports. BMI from across sporting disciplines were under normal category BMI. The predominance of ball-game athletes may reflect the composition of the university's sporting population and the representation of different sporting disciplines in the recruitment process.

With respect to competitive participation, the largest proportions of respondents competed at the district level (34.2%) and university or college level (28.9%). Smaller proportions participated at the

national (10.5%) and international levels (2.6%). These findings indicate that the sample included athletes with varying levels of competitive exposure, although most participants competed at district or university level. Such variation may be relevant when interpreting eating behaviours and dietary intake because athletes' training demands, competition schedules, and weight-management practices may differ according to their sporting and competitive contexts.

Eating Disorder Risk According to Sporting Discipline

Eating disorder risk was assessed using the Eating Attitudes Test-26 (EAT-26), with scores of 20 or higher indicating elevated risk. Overall, 29 of the 76 participants (38.2%) scored at or above this threshold, whereas 47 (61.8%) scored below it. The proportion screening positive varied considerably across sporting disciplines, with the highest proportion observed among athletes participating in aesthetic and weight-category sports (73.3%; n = 11), followed by endurance athletes (38.5%; n = 5) and ball-game athletes (27.1%; n = 13) (Table 1).

Table 1. EAT-26 screening results according to sporting discipline

EAT-26 category	Ball games (n = 48), n (%)	Endurance sports (n = 13), n (%)	Aesthetic/ weight-category sports (n = 15), n (%)	Total (N = 76), n (%)
Score below 20	35 (72.9)	8 (61.5)	4 (26.7)	47 (61.8)
Score ≥ 20	13 (27.1)	5 (38.5)	11 (73.3)	29 (38.2)

Note. EAT-26 = Eating Attitudes Test-26. A score of ≥20 indicates elevated eating disorder risk based on screening criteria and does not constitute a clinical diagnosis.

The proportion of athletes screening positive was descriptively higher in aesthetic and weight-category sports than in the other sporting groups. This pattern may reflect the specific demands of disciplines in which body appearance, weight limits, or body composition are perceived to influence performance or competitive eligibility. Such demands may encourage heightened monitoring of body weight and shape, potentially contributing to restrictive eating practices or other maladaptive weight-control behaviours (Patel et al., 2003; Ceballos et al., 2019). However, because the present study did not directly assess perceived pressure from coaches, body image dissatisfaction, or sport-specific weight-management expectations, these mechanisms should be regarded as plausible explanations rather than demonstrated causes.

The proportion screening positive among endurance athletes was also noteworthy. Endurance sports involve substantial exercise-related energy expenditure, and athletes may experience pressure to maintain a body composition perceived to be advantageous for performance. Nevertheless, the present findings do not establish whether the elevated screening proportion in this group was related to training volume, dietary restriction, body image concerns, or other psychological and environmental factors. Further investigation incorporating direct measures of these variables would help clarify the factors associated with eating disorder risk in different sporting disciplines. The observed variation across sports is broadly consistent with the literature suggesting that eating disorder risk may

differ according to the physical and performance-related demands of disciplines. Teixidor et al. (2021), for example, reported differences in eating disorder-related outcomes across sporting populations, including elevated risk in certain aesthetic-sport and endurance-sport subgroups. However, direct comparisons should be made cautiously because the populations, screening instruments, outcome definitions, and study designs may differ. In particular, the proportion of athletes screening positive in the present study should not be interpreted as the prevalence of clinically diagnosed eating disorders.

The overall screening-positive proportion of 38.2% nevertheless indicates that eating disorder risk warrants attention in this university athletic population. The findings support the potential value of incorporating confidential screening and appropriate referral pathways into athlete health services, particularly for athletes who may experience substantial weight- or appearance-related pressures. Such screening should be accompanied by professional assessment rather than used as a substitute for clinical diagnosis.

Eating-Related Behaviours and Weight-Control Practices

In addition to the overall EAT-26 screening results, the reported occurrence of behaviours such as binge eating, self-induced vomiting, laxative or diuretic use, and exercise undertaken for weight-loss purposes raises concerns about potentially maladaptive weight-control practices among some participants. These behaviours require careful interpretation because their clinical significance depends on factors such as frequency, duration, motivation, and associated psychological distress. The occurrence of an individual behaviour does not, in isolation, establish an eating disorder.

Compensatory behaviours, particularly when recurrent or associated with intense concerns about body weight and shape, may warrant further assessment. Potential influences in athletic settings include weight-category requirements, expectations concerning physique, coaching practices, and social comparison among teammates (Ceballos et al., 2019). These factors may be especially relevant in disciplines in which appearance or body weight is perceived to influence performance. However, the present study did not establish the contribution of each factor, and their roles should be examined directly in future research.

Exercise undertaken for weight control also requires contextual interpretation. High exercise volumes are common in competitive sport and are not inherently indicative of disordered eating. Concern arises when exercise becomes compulsive, is primarily driven by distress about body weight or shape, or is continued despite injury, illness, or inadequate recovery. Under such circumstances, weight-control practices may compound the physiological demands of training and potentially contribute to fatigue, impaired recovery, or psychological distress (Zaccagni et al., 2023). Importantly, eating disorder risk cannot be inferred solely from BMI or body weight. Athletes with BMI values within conventional healthy-weight ranges may still experience body image dissatisfaction, restrictive eating, or other problematic eating behaviours. Accordingly, the findings reinforce the importance of assessing psychological and behavioural indicators alongside anthropometric measures. Future studies should investigate body image, perfectionism, perceived coaching pressure, and weight-control motivation to better understand the factors

associated with elevated EAT-26 scores among university athletes.

Daily Energy Intake According to Sporting Discipline

Mean reported daily energy intake differed descriptively across sporting disciplines. Endurance athletes reported the highest mean energy intake (1,472.19 ± 366.74 kcal/day), followed by athletes in aesthetic and weight-category sports (1,349.78 ± 347.61 kcal/day) and ball-game athletes (1,309.32 ± 404.43 kcal/day). The overall mean reported energy intake was 1,396.32 ± 384.74 kcal/day (Table 2).

Table 2. Mean reported daily energy intake according to sporting discipline

Sporting discipline	n	Energy intake (kcal/day), mean ± SD
Ball games	48	1,309.32 ± 404.43
Endurance sports	13	1,472.19 ± 366.74
Aesthetic and weight-category sports	15	1,349.78 ± 347.61
Overall	76	1,396.32 ± 384.74

Note. SD = standard deviation; kcal/day = kilocalories per day. Values represent reported dietary energy intake.

The relatively low mean reported energy intake across the sample warrants further investigation, given the potentially substantial energy demands of competitive sport. Across all sports categories, reported energy intake was considerably below recommended levels for competitive athletes. Ferraris et al. (2019) reported substantial under-reporting among collegiate team-sport athletes, indicating that dietary misreporting is a relevant methodological concern in athletic populations. Nevertheless, differences between studies may reflect variation in participant characteristics, dietary assessment methods, and under-reporting classification criteria.

Dietary misreporting can arise from recall errors, inaccurate portion-size estimation, omission of foods or beverages, and difficulties recalling food consumed outside the home. Social desirability and concerns about body weight may also influence reporting in some participants. However, these explanations were not directly tested in the present study and should not be assumed to account for the observed under-reporting. Future research should consider repeated 24-hour recalls, detailed portion-size assessment, and appropriate methods for evaluating the plausibility of reported energy intake. Where feasible, dietary data should also be interpreted alongside estimates of energy requirements and exercise expenditure. These measures would improve the assessment of dietary adequacy and help distinguish genuinely low intake from measurement error.

Relationship Between Reported Energy Intake and EAT-26 scores

Spearman's rank correlation analysis identified a very weak negative association between reported daily energy intake and EAT-26 total scores ($r_s = -0.057$); however, the association was not statistically significant ($p = 0.627$). Thus, the analysis did not provide sufficient evidence of a monotonic association between reported energy intake and eating-related attitudes and behaviours in this sample. The direction of the correlation suggests that higher EAT-26 scores tended to occur alongside slightly lower reported energy intake, but the magnitude of the coefficient was negligible. Consequently, the result should not be interpreted as evidence that athletes with elevated eating disorder

risk consistently consumed less energy than those with lower scores. Rather, the findings indicate that EAT-26 scores and reported energy intake captured different aspects of eating-related health in this sample.

This lack of a statistically significant association is plausible because the EAT-26 measures eating-related attitudes and behaviours rather than dietary energy intake itself. Individuals may report elevated eating-related concerns without necessarily having low energy intake on the day assessed. Conversely, athletes may consume insufficient energy relative to their training demands without reporting substantial eating-related concerns on the EAT-26. The distinction is particularly important when dietary intake is estimated using a limited number of 24-hour recalls, which may not capture usual intake or fluctuations associated with training and competition.

The finding is broadly consistent with the study by Michael et al. (2019), which reported no statistically significant relationship between energy intake and EAT-26 scores among adolescent climbers. Differences in population characteristics, sporting demands, dietary assessment procedures, and sample size may influence the strength of associations observed across studies. Accordingly, the absence of a statistically significant association in the present study should not be interpreted as evidence that energy intake and eating disorder risk are unrelated in all athletic populations. Taken together, these findings indicate that reported energy intake alone may be insufficient for identifying athletes at risk of disordered eating. A more comprehensive assessment should incorporate validated eating disorder screening, dietary intake, anthropometric indicators, training demands, and relevant psychological factors. Longitudinal studies using repeated dietary assessments would help establish whether changes in energy intake are associated with changes in eating-related attitudes and behaviours over time.

Conclusion

This study identified an elevated proportion of eating disorder risk among university athletes, particularly among those participating in aesthetic and weight-category sports. These findings highlight the importance of integrating eating disorder screening with comprehensive nutritional assessment to support early identification and appropriate intervention. Future multicentre studies using larger samples and more robust dietary assessment methods are warranted to clarify the factors associated with eating disorder risk and inform targeted preventive strategies for athletes.

References

1. Allison, K. C. (2009). Eating Disorders: Disorders of Under- and Overnutrition. Nutrition Guide for Physicians, 241–252.
2. Amawi, A. T., Al-Kasasbeh, W. J., Jaradat, M., Almasri, A., Alobaidi, S., Hammad, A., Bishtawi, T., Fataftah, B., Türk, N., Saoud, H. A., Jarrar, A. H., & Ghazzawi, H. A. (2024). Athletes' nutritional demands: a narrative review of nutritional requirements. Frontiers in Nutrition, 10(10).
3. Arthur-Cameselle, J. N., & Quatromoni, P. A. (2011). Factors Related to the Onset of Eating Disorders Reported by Female Collegiate Athletes. The Sport Psychologist, 25(1), 1–17.
4. Baum, A. L. (2013). Eating Disorders in Athletes. Clinical Sports Psychiatry, 44–52.
5. Borowiec, J., Banio-Krajnik, A., Malchrowicz-Mosko, E., & Kantanista, A. (2023). Eating

disorder risk in adolescent and adult female athletes: the role of body satisfaction, sport type, BMI, level of competition, and training background. BMC Sports Science, Medicine & Rehabilitation, 15(1).

6. Bratland-Sanda, S., & Sundgot-Borgen, J. (2013). Eating disorders in athletes: Overview of prevalence, risk factors and recommendations for prevention and treatment. European Journal of Sport Science, 13(5), 499–508.
7. Ceballos, I. D., Molina, M. J. R., Vallejo, E. N., & Izquierdo, D. G. (2019). Coaches' beliefs, attitudes, and risk behaviors regarding their athletes' weight: A descriptive study. Revista de Psicología Aplicada al Deporte y el Ejercicio Físico, 4(2), 1–8.
8. Doyle, J., Morgan, J., Papathomas, A., Hugo, P., Hind, D., & Birks, S. (2025). Disordered eating within elite male adolescent rugby: a cross-sectional study of the eating habits and attitudes in male academy rugby union players. The Physician and Sportsmedicine, 1–8.
9. El Ghoch, M., Soave, F., Calugi, S., & Dalle Grave, R. (2013). Eating disorders, physical fitness and sport performance: A systematic review. Nutrients, 5(12), 5140–5160.
10. Fatmanur Ozyurek Arpa, Keskin, E., Sezer, E., Beyza Nur Kocabaş, Omur, S., & Hande Bakırhan. (2025). Eating disorders, nutrient intake, and cardiometabolic risks: a cross-sectional study in Turkish adults. BMC Public Health, 25(1).
11. Fatt, S. J., George, E., Hay, P., Jeacocke, N., & Mitchison, D. (2024). Comparing Population-General and Sport-Specific Correlates of Disordered Eating Amongst Elite Athletes: A Cross-Sectional Study. Sports Medicine - Open, 10(1).
12. Feng, B., Harms, J., Chen, E., Gao, P., Xu, P., & He, Y. (2023). Current Discoveries and Future Implications of Eating Disorders. International Journal of Environmental Research and Public Health, 20(14).
13. Ferraris, C., Guglielmetti, M., Trentani, C., & Tagliabue, A. (2019). Assessment of Dietary Under-Reporting in Italian College Team Sport Athletes. Nutrients, 11(6), 1391.
14. Joy, E. (2022). Eating Disorders. Mental Health Care for Elite Athletes, 79–88.
15. Joy, E., Kussman, A., & Nattiv, A. (2016). 2016 update on eating disorders in athletes: A comprehensive narrative review with a focus on clinical assessment and management. British Journal of Sports Medicine, 50(3), 154–162.
16. Kettunen, O., Mikkola, J., & Ihalainen, J. K. (2025). Associations Between Body Composition and Performance in Elite Endurance Athletes. International Journal of Sports Physiology and Performance, 1–8.
17. Langa, D., Naczyk, M., Szymczak, R. K., Karbowska, J., & Kochan, Z. (2025). A Preliminary Study of Nutrients Related to the Risk of Relative Energy Deficiency in Sport (RED-S) in Top-Performing Female Amateur Triathletes: Results from a Nutritional Assessment. Nutrients, 17(2), 208.
18. Magee, M. K., Jones, M. T., Fields, J. B., Kresta, J., Chinguun Khurelbaatar, Dodge, C., Merfeld, B., Ambrosius, A., Carpenter, M., & Jagim, A. R. (2023). Body Composition, Energy Availability, Risk of Eating Disorder, and Sport Nutrition Knowledge in Young Athletes. Nutrients, 15(6), 1502–1502.
19. Mari-Sanchis, A., Burgos-Balmaseda, J., & Hidalgo-Borrajo, R. (2022). Eating disorders in sport: Update and proposal for an integrated approach. Endocrinología, Diabetes y Nu-

trición, 69(2), 131–143.
20. Melda Pelin Yargic, & Faik Ozdengul. (2023). Eating Disorders in Athletes. Springer EBooks, 111–122.
21. Michael, M. K., Joubert, L., & Witard, O. C. (2019). Assessment of Dietary Intake and Eating Attitudes in Recreational and Competitive Adolescent Rock Climbers: A Pilot Study. Frontiers in Nutrition, 6 (64).
22. Nicoli, M. G., & Junior, R. D. R. L. (2011). Binge Eating Disorder and body image perception among university students. Eating Behaviours, 12(4), 284–288.
23. Patel, D. R., Greydanus, D. E., Pratt, H. D., & Phillips, E. L. (2003). Eating Disorders in Adolescent Athletes. Journal of Adolescent Research, 18(3), 280–296.
24. Petisco-Rodriguez, C., Sanchez-Sanchez, L. C., Fernandez-García, R., Sanchez-Sanchez, J., & Garcia-Montes, J. M. (2020). Disordered Eating Attitudes, Anxiety, Self-Esteem and Perfectionism in Young Athletes and Non-Athletes. International Journal of Environmental Research and Public Health, 17(18), 6754.
25. Sadek, Z., Salwa Albar, Mattar, L., Intissar Jendieh, Mansour, D., Nadeen Zayour, & Maha Hoteit. (2025). Exploring the prevalence and risks of eating disorders in Lebanon's athletic community. Scientific Reports, 15(1).
26. Suryawati, Dieny, F. F., Purwanti, R., Tsani, A. F. A., & Widyastuti, N. (2020). Risk factors of eating disorders in young female athletes. Food Research, 4(S3), 83–91.
27. Szumska, I., Tury, F., Csoboth, C. T., Rethelyi, J., Purebl, G., & Hajnal, A. (2005). The prevalence of eating disorders and weight-control methods among young women: a Hungarian representative study. European Eating Disorders Review, 13(4), 278–284.
28. Teixidor-Batlle, C., Ventura, C., & Andres, A. (2021). Eating Disorder Symptoms in Elite Spanish Athletes: Prevalence and Sport-Specific Weight Pressures. Frontiers in Psychology, 11.
29. Zaccagni, L., & Gualdi-Russo, E. (2023). The Impact of Sports Involvement on Body Image Perception and Ideals: a Systematic Review and Meta-Analysis. International Journal of Environmental Research and Public Health, 20 (6), 5228.