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RESEARCH PAPER

The Big Five Personality Traits related Risks and Protective Factors for Eating Disorders: Insights from University Non-Athletes Students and Varsity Elite Athletes of Track and Field

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ABSTRACT

The BFPTs and ED are generally thoughtful vital psychological components inspiring students athletes achievements and well-being. Although, previous study has not sufficiently conducted the BFPTs related risk and protective factor for ED among university students, especially athletic-base differences, providing an important research gap. Consequently, the study objective was to find the BFPTs related risk and protective factor for ED among university elite athletes of athletic and non-athletes varsity students. The study sample was consisted of 203 university students, adding 105 varsity elite athletes of track and field (M = 21.88 with SD = 1.609) and 98 non-athletes (M = 21.57 with SD =1.593). The cross-sectional study used a self-reported questionnaire consisting on three section, demographic section, the BFI-10 to evaluate the personality traits, and the EDE-Qs to assess the eating disorder. Hierarchical regression revealed that the openness, extraversion and conscientiousness combinedly described a moderate degree of variance in ED among varsity elite athletes and non-athletes. Adding openness showed significantly risk factor with eating disorder among elite athletes of athletic. Additionally, extraversion showed protective factor with eating disorder and conscientiousness showed risk factor with ED among non-athletes university students. The results indicate that personality traits are linked to eating disorders differently in elite athletes compared to non-athletes that depends a lot on a person's environment and social factors, like the pressures of sports or university life. This suggested that understanding and tackling eating issues might require approaches that were customized for each group.

Keywords: Big Five Personality Traits, Eating Disorder, Openness, Extraversion, Conscientiousness, Elite Athletes, Non-Athletes, Track and Field

Introduction

Since Eating disorders (EDs) are considered as the Irregular eating patterns, body image disturbances and harmful preoccupation with the weight and shape that are the severe psychiatric circumstances (Sadek et al., 2025; Willson et al., 2025). This normally include the conditions like "binge eating behaviours, bulimia nervosa, anorexia nervosa" and other substitute medical disturbances which can significantly affect both physical and psychological wellbeing of a person (Jalali & Ghanbari-Jahromi, 2025). Among University students, eating disorders have become increasingly prevalent. For example, the recent studies conducted at the university level found that 34.9% of university students were at the risk of developing eating disorders (Eguren-García et al., 2024). While in terms of University athletes, Staśkiewicz-Bartecka et al. (2024) reported that athletes are more susceptible to EDs than other general population (Fatt et al., 2024). For example, a study

conducted in the UK showed that 44 % of athletes are at the risk of eating disorders (Sharps et al., 2022).

The consequences of eating disorders extend beyond the eating habits as these are associated with many negative effects such as poor sleep quality, lower self-esteem, impaired social functioning, poor quality of life which will lead to reduced academic performance and increase risk of injuries among athletes by impairing the strength and endurance (Abanobi et al., 2025; Gao et al., 2024; Sadek et al., 2025). Moreover, the athletes that were include in the disordered eating behaviors in past are at the risk of stress fractures and overuse injuries than the other athletes (Sadek et al., 2025). In athletic populations, the pressure to maintain the optimal body weight and the appearance for a specific performance can further worsen disordered eating tendencies, whereas, among non-athletes the stressors linked to academic difficulties and social prospects often play a serious role in triggering such circumstances (Ellul, 2024).

Personality, on the other hand, provides a valuable framework for understanding the behavioral and emotive vulnerabilities that may incline individuals to eating disorders (EDs) (Claes et al., 2024). The big five personality traits, "extraversion, neuroticism, openness to experience, conscientiousness and agreeableness" are well established dimensions for explaining individual differences (AlBlooshi et al., 2025). According to the recent studies, eating disorders may connected with individuals personality in some way (Dufresne et al., 2020). For example, people who score high on neuroticism tend to be more emotionally sensitive, struggle with stress, and have more negative self-views which can lead to disordered eating patterns (Gilmartin et al., 2022; Hambly, 2025). Meanwhile, those higher in conscientiousness and agreeableness often use healthier coping strategies and were less likely to developed eating problems (Tsartsapakis & Zafeiroudi, 2024; Muzaffar & Choudhary, 2017). In athletic context, conscientiousness and perfectionism may motivate discipline and the performance but can also promote the rigid and unhealthy eating patterns under the competitive pressures (Gacek et al., 2022). Conversely, traits such as extraversion and agreeableness may promote the adaptive coping and social connectedness thus offering protection against disordered eating (Berengüí & Castejón, 2023). This highlights the potential dual role of Big 5 personality traits, which act as a protective factor or risk for eating disorders depending upon the individual and the environmental context.

The relationship between personality and eating disorders has gained the increased study attention because personality traits might influence both, the sensitivity and resilience to eating disorders (EDs). Particularly, neuroticism has been repetitively found to be a powerful risk factor for body dissatisfaction and drive for thinness, whereas low conscientiousness and low openness have also been associated to the maladaptive eating habits (Zhang et al., 2024). On the other hand, extraversion may protect against the development of eating disorders and has been linked to the decreased levels of depressive symptoms (Wang et al., 2025). Among athletes, the perfectionistic tendencies connected with conscientiousness and openness to new experience can increase the exposure to eating disorders risk however, among non-athlete university students they might experience eating disorders vulnerability through personality related stress responses in their academic and social life (Fekih-Romdhane et al., 2024; St-Cyr et al., 2024). Thus, it is important to examine that how big 5 personality traits are connected to eating disorders differently in Elite athletes and non-athletes.

While a lot of research has looked at how personality relates to eating disorders in the general population, there was less focused on specific groups like elite university athletes. Still, there was not enough comparative research exploring these differences between university elite athletes and non-athlete's students especially regarding how personality affects psychological vulnerability to eating disorders during this key period of life. Even though recent studies emphasize how personality impacts emotional resilience and mental health there was still a big gap when it comes to understanding how specific

personality traits relate to the risk of eating disorders in elite athletes especially those involved in sports like track and field versus non-athlete students. Most research assume athletes as a single group or looks only at non-clinical student populations (Carpita et al., 2024). The current investigation focuses to explore how the BFPTs are linked to eating disorders among university-level elite track and field athletes compared to students who did not participate in sports. By understanding how different personality traits influenced disordered eating in these groups we hope to explain psychological risks specific to each. These findings could help develop more customized mental health assessments, nutritional advice, and prevention programs that addressed the unique needs of both athletes and non-athletes in university students.

This study goals to explore how the BFPTs are linked to eating disorders among university-level elite track and field athletes compared to students who did not participate in sports.

Literature review

The association between personality traits and eating disorders has been progressively explored in recent years as these both variables are essential in the understanding of the psychological wellbeing of young adults. Eating disorders has been remained a significant public health concern among both groups, athletes and non-athletes, where athletes might face sports specific pressure and non-athletes experience academic pressure and social stressors that might influence the eating disorder behaviours (Fekih-Romdhane et al., 2024). Whereas, the big five personality traits offer critical Framework to examine the individual differences that might as a risk factor or a protective factor in the eating disorder behaviours (St-Cyr et al., 2024). For example, Gilmartin et al. (2022) investigated link between personality traits with kinds of eating issues and found that Neuroticism consistently showed a strong connection with all types of disordered eating, making it a key risk factor.

Similarly, a study conducted by Kerr (2023) investigated the Five-Factor Model, that included Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness which is widely used to understand personality traits, in meta-analytic review that increasingly explored how these traits related to various eating disorders like anorexia, bulimia, binge-eating disorder and other disordered eating habits such as restrictive dieting, purging or bingeing and found that traits like perfectionism and poor impulse regulation are strongly linked to these eating disorders.

Another study investigated by Graham et al. (2020) examined how specific personality traits predict disordered eating behaviors, even among people without clinical diagnoses. Some facets, like impulsivity and anxiety within Neuroticism, along with aspects of Conscientiousness and Perfectionism, seem especially relevant to behaviors like bingeing or restrictive dieting. A new line of research introduced the idea of 'healthy neuroticism,' which showed high Neuroticism combined with high Conscientiousness might actually lead to fewer problematic eating behaviors.

In addition, A study focused on women founded positive links between Neuroticism, Agreeableness, and everyday eating habits and suggested that Conscientiousness and Neuroticism have moderate risks and linked with eating disorder. While these findings didn’t diagnose eating disorders as they emphasized how personality traits influenced daily food choices in general population (Keller & Siegrist, 2015).

Furthermore, several studies have discovered that the understanding of personality traits and its effect with eating disorders tendencies provides a powerful lens through which the individuals who were at higher risk can be identified and supported (Burgon, 2023;

Escalante, Barakat, Tinsley, & Schoenfeld, 2023; Garrido, Funes, Peñaloza Merlo, & Cupani, 2018).

Material and Methods

The present study used cross-sectional survey approach to gather data from participants all at once in order to investigate the BFPTs related risk and protective factor with eating disorder among university elite athletes of athletic and non-athlete's varsity students. The study involved 203 varsity elite athletes of track and field and non-athletes university students. To be eligible participants needed to be enrolled in an undergraduate or similar academic course at a university and be habitual students, be partner of the university track and field squad, with more than 5 years experienced in their events, have competed at National and International matches, and age was 18 to 25 years old. Originally, the researchers pinpointed 203 potential participants 105 were elite athletes of track and field (M= 21.88 with S. D= 1.609) and 98 non-athletes varsity students (Mean= 21.57 with S. D= 1.593).

The study tool was a self-assessed questionnaire, that consisted of three segments as written below: The first part of this study consisted on demographic information which include 11 components: athletic status, age, gender, marital status, residence, the university name, event of sports, current injury status, highest sport participation level, training days per week and training hour per day for varsity elite athletes of track and field and non-athletes university students.

A quick and easy method for evaluating personality characteristics was the (BFI-10) developed by Rammstedt and John (2007). The original BFI (BFI-44), was created by John et al. (1991), served as its foundation. The primary objective was to accurately and consistently measure the five fundamental personality qualities of extraversion, conscientiousness, agreeableness, neuroticism, and openness. What makes the BFI-10 stand out was it brevity, precision, and efficiency it was easy to use and quick to complete. In this study, each trait's Cronbach's alpha values were as follows: "Agreeableness = 0.711, Extraversion = 0.752 Conscientiousness = 0.894, Neuroticism = 0.871, and Openness = 0.771". This suggested that the tool was valid and reliable.

A brief and self-reporting tool named "The eating disorder examination questionnaire-short form (EDE-Qs)" is developed by Fairburn et al. (2008). This tool evaluated the eating disorder scores in individuals of at least 18 years of age or older. It evaluated the last 28 days severity of food, weight, and shape-related concerns as well as the frequency of behaviors. A 7-point Likert scale, with 0 denoting no days and 6 denoting every day, is used to score each item. The EDE-Qs was selected for the present study due to its concise nature and minimal time requirements. 0.818 value of Cronbach's alpha was observed in this study, participants founded the tool was easy to understand and complete which further supported its suitability for this study.

For this study, we chose to collect the data through face-to-face interactions. Before starting, we made sure to get approval from the institution's ethics review board. We explained the purpose of the study clearly to everyone and reassured them that their information would be for exclusive use only for analysis. Involvement was completely optional and people could withdraw at any time if they chose. The questionnaires were given out in person and we guided participants to pick the answer that best matched their feelings or opinions. If anyone had trouble understanding something or needed help, they were invited to rise the query while filling out to form. On average each person took about 10 to 15 minutes to complete the questionnaire.

This study used IBM SPSS (v. 22) program for data assessment. Descriptive evaluation of individuals and Analysis using multiple linear hierarchical regression (MLHR)

was done to determine whether BFPT and ED were related. The *p* - value was fixed below .05 which aided in evaluating the level of significance. Additionally, all mandatory statistical assumption for MLHR analysis were met containing multicollinearity, independence of errors, homoscedasticity, normality, and linearity, were verified earlier performed the fundamental analysis.

Results and Discussion

All characteristics in this study were split into two groups: athletes and non-athletes. Each group was analyzed separately using hierarchical multiple regression analysis.

Table 1
Characteristic of the Participants

Variables	Category	Athletes		Non-athletes	
		N	%	N	%
Gender	Male	52	49.5	49	50.o%
	Female	53	50.5	49	50.0%
Residence	Urban	52	49.5	57	58.2%
	Rural	53	50.5	41	41.8%
Event of Sports	Races	40	38.1%		
	Throws	41	39.0%		
	Jumps	24	22.9%		
		M	**SD**	**M**	**SD**
Age		21.88	1.609	21.57	1.593

The study included 105 athletes and 98 non-athletes. Males were 49.5% and 50.5% females among athletes and an even 50% male and female distribution among non-athletes. Regarding residence 49.5% of athletes were from area of city and 50.5% from village areas. Non-athletes university students 58.2% were lived in cities and 41.8% were from rural areas. Looking at the involvement of athletes in event of track and field the numbers were uneven 38.1% compete in races, 39.0% in throwing events, and 22.9% in jumping competitions. The average age was 21.88 years with a small variation (standard deviation of 1.61) that was a bit higher than non-athletes average age was 21.57 years (SD = 1.59).

Table 2
ANOVA outcomes for the association between BFPTs and ED amidst elite athletes of track and field

	source	Sum of Squares	df	Mean Square	F	Sig.
Model 1	Regression	416.600	2	208.300	4.786	0.010[b]
	Residual	4439.628	102	43.526		
	Total	4856.229	104			
Model 2	Regression	823.860	7	117.694	2.831	0.010[c]
	Residual	4032.369	97	41.571		
	Total	4856.229	104			

The ANOVA (table 2) results showed that both model 1 & model 2 statistically significantly predict the dependent variable. The model 1 was F = 4.786, *p* = .010. indicated that the significant portion of the variance in eating disorder scores among athletes**.** The model 2 which included seven predictors was also yield a statistically significant F = 2.831, *p* = .010. Indicated that the full model, included personality traits, significantly predicts eating disorder symptoms., and explained even a greater amount of variance than model 1. R^2 = .170 indicated the variance of 17% in EDs scores.

Table 3
Hierarchical regression analysis for relationship between predicting and eating disorder symptoms in elite athletes of athletic

Model	Variables	B	Standard Error B	β	t	*P*
1	Age	.874	.402	.206	2.172	.032
	Gender	2.718	1.289	.200	2.109	.037

2	Age	.960	.402	.226	2.387	.019
	Gender	2.493	1.325	.183	1.881	.063
	Extraversion	-.896	.737	-.118	-1.216	.227
	Agreeableness	.272	.978	.038	.278	.782
	Conscientiousness	-.012	.712	-.002	-.017	.987
	Neuroticism	-.103	.774	-.023	-.134	.894
	Openness	1.470	.675	.243	2.178	.032

The results (table 3) showed that in model 1 both demographic chrematistics age (B = .874, *p* = .032) and gender (B = 2.718, *p* = .037) were statistically significant predictors. In modal 2 age was statistically significant (B = .960, *p* = .019) but gender was marginally non-significant (*p* = .063). Among the personality traits only openness was significant with positive effect (B = 1.470, *p* = .032). Remaining personality traits extraversion (*p* = .227), agreeableness (*p* = .782, conscientiousness (*p* = .987), and neuroticism (*p* = .894), were not statistically significant predict the outcome.

Table 4
ANOVA findings for the correlation between BFPTs and ED within non-athletes university students

	source	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Model 1	Regression	122.639	2	61.320	1.832	0.166[b]
	Residual	3179.361	95	33.467		
	Total	3302.000	97			
Model 2	Regression	700.441	7	100.063	3.462	0.003[c]
	Residual	2601.559	90	28.906		
	Total	3302.000	97			

The ANOVA (table 4) results showed that model 1 statistically non-significantly predict the dependent variable with F = 1.832, *p* = .166. Indicated no significant portion of the variance in eating disorder among non-athlete. The model 2 which included seven predictors is yield a statistically significant F = 3.462, *p* = .003. Indicated that the full model, included personality traits, significantly predicts eating disorder symptoms., and explained even a greater amount of variance than model 1. R^2 = .212 indicated the variance of 21% in EDs scores.

Table 5
Hierarchical regression analysis for relationship between predicting and eating disorder symptoms in elite athletes of athletic

Model	**Variables**	**B**	**Standard Error B**	**β**	**t**	***P***
1	Age	-.181	.370	-.049	-.488	.626
	Gender	2.215	1.174	.191	1.887	.062
2	Age	-.153	.351	-.042	-.436	.664
	Gender	2.136	1.112	.184	1.922	.058
	Extraversion	-1.188	.473	-.248	-2.510	.014
	Agreeableness	-.036	.610	-.007	-.059	.953
	Conscientiousness	1.285	.410	.328	3.137	.002
	Neuroticism	.299	.523	.066	.572	.569
	Openness	.726	.461	.162	1.575	.119

R^2 =.037 for model 1; R^2 =.212 for model 2

The results (table 5) showed that in model 1 both demographic chrematistics age (*p* = .626) and gender (*p* = .062) were not statistically significant predictors. In modal 2 age (*p* = .664) and gender (*p* = .058) remaining same non-significant. Among the personality traits extraversion (B = -1.188, *p* = .014) was significant with negative effect and conscientiousness (B = 1.285, *p* = .002) was significant with positive association. Remaining personality traits agreeableness (*p* = .953), neuroticism (*p* = .569) and openness (*p* = .119) were not statistically significant predict the outcome.

Discussion

This innovative study's primary objective was to look at the BFPTs related risks and protective factors for eating disorder insights from university non-athletes' students and varsity elite athletes of track and field. No any studies have particularly conducted on student-athletes, especially in the context of elite athletes of track and field thus making this a novel study. The findings of this study demonstrated that BFPTs had an average variation level in ED among university elite athletes of athletic and non-athlete students. Specially openness trait with eating disorder was statistically significant with positive association that represent openness was risk factor among varsity elite players of athletic. In university non-athletes students personality of extraversion with eating disorder was significant with negative association that represent extraversion was protective factor and conscientiousness with eating disorder is also statistically significant with positive association that represent conscientiousness was risk factor in non-athletes university students.

The novel study found that the openness trait was important and showed positive relation with eating disorder symptoms in elite athletes of athletic. This recommended that high score in openness potentially lead to increased symptoms of ED that indicated openness was risk factor among elite athletic players. No former academic study has evaluated the BFPTs related risk and protective factors with eating disorder among university elite players of athletic and non-athletes until now. However, earlier studies conducted by Escalante, Barakat, Tinsley, Schoenfeld, et al. (2023) supported this idea and founded that highly open athletes might be more prone to risky or experimental behaviors such as extreme dieting or supplement use to boost appearance or performance. Additionally, Garrido, Funes, Peñaloza Merlo, Cupani, et al. (2018) noted that among young Argentineans, openness was strongly correlated with anorexia nervosa (ED).. Similarly, Dubovi et al. (2016) indicated that emotional stability was positively correlated with anorexia nervosa (ED) symptoms in college-aged men, and that openness was positively correlated with purging-type actions.. On the other hand, no studies have contradicting results. These mixed findings indicated that the connection between openness and eating disorders may depended on specific environments and situations especially in sports where body image, performance pressures, and dieting experimentation are common. Athletes who tended to be more open meaning they were imaginative, curious, and enjoy trying new things might be more at risk for disordered eating behaviors. Future studies should look into how openness interacts with the type of sport, coaching approaches, and cultural norms to better understand its impact on elite athletes of track and field eating behaviors.

The newly study showed that extraversion personality trait was important and negatively associated with eating disorders among university student who were not athletes. This suggested that high score in extraversion might lead to decreased the level of eating disorder that indicated extraversion was protective factor among non-athletes university students. No any earlier study has conducted BFPTs related risk and protective factors with eating disorder among university non-athletes students up to right now. Although, previously study performed by Garrido, Funes, Peñaloza Merlo, Cupani, et al. (2018) supported this idea and found that extraversion was negatively associated with anorexia (ED) in young Argentineans. Similarly, Allen et al. (2025) discovered that extroversion was connected to better self-control in eating and a lower chance of binge eating, especially in people who were obese. On the other hand, study showed different results Ferreira (2022) pointed out that in general population extraversion was positively associated with taking risks of unpredictable eating habits. All these mixed findings suggested that the impact of extraversion on eating disorders depended on which aspects of the personality were involved such as social skills versus impulsiveness along with cultural influences and gender differences. Higher level of extraversion which usually means being more social, assertive, and emotionally open seem to protect against disordered

eating. For people who were not athletes where the pressure to perform was not as intense the social support and emotional openness that come with extraversion generally seem to offer more consistent mental health benefits and a lower risk of eating problems.

Study suggested that in university students, who were not athletes, showed conscientiousness was positively associated with eating disorder. This suggested that university students having high conscientious personality might lead to increased symptoms of ED that represent conscientiousness was risk factor in varsity non-athletes students. This idea was new because of prior study on this population. Earlier, no studies supported this result that conscientiousness was positively associated with ED in varsity non-athlete's students. While other contradicting study carried out by Garrido, Funes, Peñaloza Merlo, Cupani, et al. (2018) showed that conscientiousness was negatively associated with anorexia (ED) in young Argentineans. Additionally, Battaion (2022) noticed that people with lower conscientiousness might be more prone to emotional eating and poor self-control around food especially if they did not cope well with stress. All in all, this study was supported the idea that while conscientiousness can often be a good thing it might also contributed to unhealthy eating behaviors when it manifests as overcontrol, rigidity, and perfectionism. those students tended to be more conscientious meaning they were careful, organized, and goal oriented were more likely to showed signed of disordered eating. In this context it seemed that a strict focus on control, perfectionism, and achievement could make someone more vulnerable to unhealthy eating habits especially when driven by perfectionist tendencies or concerned about body image. It was important to recognized that personality traits did not always have straightforward effects they can sometimes lead to different outcomes depended on the person and the situation.

Conclusion

This study showed that openness might be a risk factor for eating disorders in top-level track and field athletes, while being an extrovert seems to offer some protection. For students who were not athletes, being conscientiousness could actually increase the risk of ED. Understanding these differences can help develop personalized mental health and nutrition programs, making it easier for both athletes and non-athletes to encourage healthier relationships with food and their bodies.

Recommendations

Looking ahead, future research should dive into how personality traits mix with cultural norms, types of sports, and coaching styles to shape eating habits. Having larger and more diverse groups of both athletes and people who were not athletes could make the evidence even stronger. Following people over time through longitudinal studies might help reveal how traits like openness, extraversion, and conscientiousness change and how these changes affect eating patterns. Plus, when designing programs to prevent or support those with eating disorders, it was important to think about how personality traits can act as risk factors or protective elements.

References

Abanobi, A. N., Itacy, S., Coleman, C. M., & Harlow, B. L. (2025). Association between eating disorders and sleep duration among college students: findings from the National Healthy Minds study. *Journal of American college health*, *73*(1), 399-405.

AlBlooshi, S., AlSabbah, K., Thani, S., Hijazi, R., Al Dhaheri, A. S., Zeb, F., & Cheikh Ismail, L. (2025). The big five personality traits and eating habits among female students at Zayed University. *Frontiers in public health*, *12*, 1490634.

Allen, M. S., Mishra, M., Tashjian, S. M., & Laborde, S. (2025). Linking Big Five personality traits to components of diet: A meta-analytic review. *Journal of personality and social psychology*, *128*(4), 905–929. https://doi.org/10.1037/pspp0000526

Battaion, M. M. (2022). *Mixed-methods analysis of the predictive effects of personality on stress-related eating behaviour: an exploratory study of perfectionism, impulsivity, and emotional control* Master thesis , Université Laurentienne

Berengüí, R., & Castejón, M. A. (2023). Personality traits and risk of eating disorders in men: a cross-sectional study. Healthcare,

Burgon, R. H. (2023). *Psychological links between body image concerns and eating disorder psychopathology in athletes and non-athletes* University of Sheffield].

Carpita, B., Nardi, B., Bonelli, C., Pronestì, C., Tognini, V., Cremone, I. M., & Dell'Osso, L. (2024). Prevalence of orthorexia nervosa in clinical and non-clinical populations: a systematic review. *CNS spectrums*, *29*(6), 549–569.

Claes, L., Kiekens, G., & Luyckx, K. (2024). Personality vulnerabilities as risk factors for eating disorders. In *Eating Disorders: An International Comprehensive View* (pp. 363-377). Springer.

Dubovi, A. S., Li, Y., & Martin, J. L. (2016). Breaking the Silence: Disordered Eating and Big Five Traits in College Men. *American journal of men's health*, *10*(6), NP118–NP126.

Dufresne, L., Bussières, E. L., Bédard, A., Gingras, N., Blanchette-Sarrasin, A., & Bégin PhD, C. (2020). Personality traits in adolescents with eating disorder: A meta-analytic review. *The International journal of eating disorders*, *53*(2), 157–173. https://doi.org/10.1002/eat.23183

Eguren-García, I., Sumalla-Cano, S., Conde-González, S., Vila-Martí, A., Briones-Urbano, M., Martínez-Díaz, R., & Elío, I. (2024). Risk factors for eating disorders in university students: The RUNEAT study. Healthcare,

Ellul, C. A. (2024). *Mental health aspects and coping strategies for student-athletes: from both academic and athletic perspectives* University of Malta].

Escalante, G., Barakat, C., Tinsley, G. M., & Schoenfeld, B. J. (2023). Nutrition, training, supplementation, and performance-enhancing drug practices of male and female physique athletes peaking for competition. *The Journal of Strength & Conditioning Research*, *37*(8), e444-e454.

Escalante, G., Barakat, C., Tinsley, G. M., & Schoenfeld, B. J. (2023). Nutrition, Training, Supplementation, and Performance-Enhancing Drug Practices of Male and Female Physique Athletes Peaking for Competition. *Journal of strength and conditioning research*, *37*(8), e444–e454.

Fairburn, C. G., Beglin, S. J. J. C. b. t., & disorders, e. (2008). Eating disorder examination questionnaire. *309*, 313.

Fatt, S. J., George, E., Hay, P., Jeacocke, N., Gotkiewicz, E., & Mitchison, D. (2024). An umbrella review of body image concerns, disordered eating, and eating disorders in elite athletes. *Journal of clinical medicine*, *13*(14), 4171.

Fekih-Romdhane, F., Pardini, S., Hallit, S., Novara, C., & Brytek-Matera, A. (2024). A multi-country examination of the relationship between perfectionism and disordered eating: the indirect effect of obsessive beliefs and obsessive-compulsive symptoms. *Journal of Eating Disorders*, *12*(1), 69.

Ferreira, S. C. (2022). *Eating disorders in female athletes: a study in the adult population* Universidade de Coimbra (Portugal)].

Gacek, M., Wojtowicz, A., & Popek, A. (2022). Personality determinants of eating behaviours among an elite group of polish athletes training in team sports. *Nutrients*, *15*(1), 39.

Gao, Z., Zhao, J., Peng, S., & Yuan, H. (2024). The Relationship and Effects of Self-Esteem and Body Shape on Eating Disorder Behavior: A Cross-Sectional Survey of Chinese University Students. *Healthcare*, *12*(10), 1034

Garrido, S. J., Funes, P. N., Peñaloza Merlo, M. E., & Cupani, M. (2018). Personality traits associated with eating disorders and obesity in young Argentineans. *Eating and Weight Disorders-Studies on Anorexia, Bulimia and Obesity*, *23*(5), 571-579.

Garrido, S. J., Funes, P. N., Peñaloza Merlo, M. E., Cupani, M. J. E., Weight Disorders-Studies on Anorexia, B., & Obesity. (2018). Personality traits associated with eating disorders and obesity in young Argentineans. *23*(5), 571-579.

Gilmartin, T., Gurvich, C., & Sharp, G. (2022). The relationship between disordered eating behaviour and the five factor model personality dimensions: A systematic review. *Journal of clinical psychology*, *78*(9), 1657-1670.

Graham, E. K., Weston, S. J., Turiano, N. A., Aschwanden, D., Booth, T., Harrison, F., James, B. D., Lewis, N. A., Makkar, S. R., & Mueller, S. J. C. P. (2020). Is healthy neuroticism associated with health behaviors? A coordinated integrative data analysis. *6*(1).

Hambly, M. (2025). *Investigating the relationship between the non-judgment facet of mindfulness and disordered eating symptoms among university Students* Laurentian University Library & Archives].

Jalali, F. S., & Ghanbari-Jahromi, M. (2025). Factors Affecting Eating Disorders in Iranian Adolescent Girls: A Scoping Review. *Health Science Reports*, *8*(8), e71182.

John, O. P., Donahue, E. M., & Kentle, R. L. (1991). *The Big Five Inventory - Versions 4a and 54*. Berkeley, CA: University of California, Berkeley, Institute of Personality and Social Research

Keller, C., & Siegrist, M. J. A. (2015). Does personality influence eating styles and food choices? Direct and indirect effects. *84*, 128-138.

Kerr, C. (2023). *Personality traits associated with anorexia nervosa and eating disorder symptoms in adolescents; a meta-analytic review* Open Access Te Herenga Waka-Victoria University of Wellington].

Muzaffar, M. & Choudhary, S. (2017). Human Development and Democratic Governance: An Analysis, *Orient Research Journal of Social Sciences, 2*(I), 71-94

Rammstedt, B., & John, O. P. J. J. o. r. i. P. (2007). Measuring personality in one minute or less: A 10-item short version of the Big Five Inventory in English and German. *41*(1), 203-212.

Sadek, Z., Albar, S., Mattar, L., Jendieh, I., Mansour, D., Zayour, N., & Hoteit, M. (2025). Exploring the prevalence and risks of eating disorders in Lebanon's athletic community. *Scientific reports*, *15*(1), 8054.

Sharps, F. R. J., Wilson, L. J., Graham, C. A.-M., & Curtis, C. (2022). Prevalence of disordered eating, eating disorders and risk of low energy availability in professional, competitive and recreational female athletes based in the United Kingdom. *European Journal of Sport Science*, *22*(9), 1445-1451.

St-Cyr, J., Gavrila, A., Tanguay-Sela, M., & Vallerand, R. J. (2024). Perfectionism, disordered eating and well-being in aesthetic sports: The mediating role of passion. *Psychology of Sport and Exercise*, *73*, 102648.

Staśkiewicz-Bartecka, W., Zydek, G., Michalczyk, M. M., & Kardas, M. (2024). Prevalence of eating disorders and self-perception concerning body composition analysis among elite soccer players. *Journal of Human Kinetics*, *95*, 259.

Tsartsapakis, I., & Zafeiroudi, A. J. J. E. S. R. (2024). Personality traits and healthy eating habits and behaviors: A narrative review. *14*, 11-23.

Wang, X.-Y., Wang, Z.-W., Jiang, D.-L., Liu, C., Xing, W.-Y., Yuan, Z.-T., Cui, L.-B., Wu, S.-J., & Ren, L. (2025). Personality perspective on depression and anxiety symptoms among Chinese adolescents and young adults: a two-sample network analysis. *BMC psychiatry*, *25*(1), 241.

Willson, E., Buono, S., Kerr, G., & Stirling, A. (2025). The relationship between psychological abuse, athlete satisfaction, eating disorder and self-harm indicators in elite athletes. *Frontiers in Sports and Active Living*, *6*, 1406775.

Zhang, Z., Robinson, L., Campbell, I., Irish, M., Bobou, M., Winterer, J., Zhang, Y., King, S., Vaidya, N., & Broulidakis, M. J. (2024). Distinct personality profiles associated with disease risk and diagnostic status in eating disorders. *Journal of Affective Disorders*, *360*, 146-155.