

Updates on Personality Dimensions in Elite Athletes: A Mini-Review

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Abstract

Psychological tools, including personality questionnaires, are used in sports sciences in diverse ways. Athletes as a high-performance stratum, particularly elite athletes, could be a category of ideals in personality studies. Moreover, the results of such studies have many advantages and applications for the athletes themselves. The present mini-review summarizes the personality profiles reported in recent years in elite athletes. It presents the common characteristics of the champions, describes the differences between sports disciplines, and outlines future applications and directions. In general, it seems that the common personality characteristics of sports elites are a variety of emotional stability, especially low neuroticism, in addition to a variety of *being-friendly* characteristics, including reward-dependence temperament, agreeableness, helpfulness, and the ability to work in a group. Being adventurous and having experiment-seeking behavior have occasionally been reported. It is hoped that with the completion of personality studies in sports, this field will reach its ideal applications.

Keywords: Elite athletes, Personality, Character

Introduction

Research on the personality characteristics of athletes is of great interest. One of the advantages of these investigations is that they provide the possibility of predicting the actions of athletes in challenging situations regarding their sports performance.¹ Extracting accurate personality profiles can be useful for coaches, sports psychologists, and academics in terms of practical application and research.² Several applications can be obtained from these profiles, including the development of specific and personalized mental training, screening and prevention of physical and psychological vulnerability, and measurement of personal talent and probability of success.³ In the extensive search of the literature, no review (recruiting reports of recent years) was found about the personality profiles of elite athletes; accordingly, the present review has addressed this discipline.

Findings of Sports Champions

A 2021 study on champions of 20 different sports fields demonstrated that these champions have low neuroticism, high extroversion, agreeableness, and high conscientiousness, and these characteristics are more prominent in the athletes of individual sports.¹ Another similar study in 2021 made an interesting classification of

personality characteristics (based on the 5-factor model) by dividing subjects into three categories, showing non-adaptive, adaptive, and highly adaptive personality profiles. It has been found that experiences related to sleep, stress, and changes due to long journeys in non-adaptive athletes are significantly more unfavorable, implying that personality classification predicts what the professional athlete actually experiences and performs in challenges.² A study of elite beach volleyball teams revealed that low neuroticism, emotional stability, warmth, and the ability to use different types of emotion regulation methods were common among elite players, interestingly proving that elite players did not differ statistically on personality scores.⁴ It seems that the myth of the successful athlete as a matter of personality is indeed true. Similarly, champions in men's sports reported lower levels of neuroticism and higher levels of extraversion, openness to experience, agreeableness, and conscientiousness compared to other athletes. Especially based on statistical prediction, an athlete is more likely to be identified as a champion when the level of neuroticism is lower.⁵ A parallel study of elite female athletes has shown that motivation to perform well and compete effectively can be measured and predicted by the Edwards Personality Scale.⁶ Of course, the majority of the previously mentioned studies did not



distinguish between genders, and the main findings of personality in the subject of the present article seem to be universal in men and women. A different study has been conducted on elites in sledding; although it did not use the 5-factor model, it provides similar findings. In this study, the elites of this field are more helpful, more open to group experiences, and attempt to agree with others though they are more suspicious and sometimes act more aggressively.⁷ Very few studies have addressed Cloninger's temperament and character model in this respect, and it seems that there is a significant related gap. A study measuring this model in elite cyclists reported no other significant difference except for high reward dependence. It should be noted that reward dependence is a temperamental element that can facilitate agreeableness and group activity³.

Sports Discipline and Personality Profile Applications

The type of sport that the athlete is involved in has such an impact that it has even been shown that scholarship athletes, compared to their counterparts, have significant differences in mental states and personalities. As it is known, American football is a violent sport; thereby, it has been demonstrated that non-scholarship football athletes are significantly different from other athletes and non-athletes in terms of temperament and anger, and related personality traits.⁸ Of course, it remains a question whether this is an association with the third factor, or a cause and effect on the part of the personality, or vice versa. It has been reported that each sport creates relatively different personality needs for the athlete and may form characteristics in this direction. For example, individual and group sports have differences in this respect.¹ It is interesting to note that such characteristics can result in finding talent and improving the performance of athletes. Personality studies can also identify the disruptions that athletes struggle to compensate for when demonstrating their eliteness. In this way, psychological auxiliary methods can be used to improve the performance of athletes. For instance, the non-adaptive conditions of the athlete against the challenges of travel or sleep have connections with the 5-factor personality, and these athletes can be improved significantly with cognitive and emotional therapies.⁹ It has been shown that people who have low neuroticism, together with high openness, extroversion, and conscientiousness, consume significantly more energy at peak walking speed. In addition, individuals with a more flexible personality profile posed greater aerobic capacity, walked faster, and required less energy per meter of walking.² In the case of sports injuries, you can also refer to personality studies. Although many studies in different models have not introduced specific profiles for injury-prone athletes, it seems that there are some findings in the recent model of temperament and character. A personality profile can be attributed to these athletes, as proposed by the originator of this model and one of the authors of the current paper, Robert Cloninger.

This profile is considered an "adventurous" angle in the temperament cube, which is a combination of low harm avoidance and high novelty-seeking, and athletes in this angle as their personality profile report more injuries. At the same time, it is reported that emotional stability and social support reduce the possibility of injuries.¹⁰

Conclusion and Future Remarks

Common findings have been presented in various studies about success in sports and the eliteness of athletes, which are presented in this study. It seems that taking personality parameters seriously in sports education and psychology, and sports medicine is logical from the scientific literature point of view. Simultaneously, there is a significant disparity with Cloninger's theory in the study of temperament and character in sports elites, and it is suggested in future studies. In general, it seems that the common personality characteristics of sport elites are a variety of emotional stability, especially low neuroticism, in addition to a variety of *being-friendly* characteristics, including agreeableness, reward-dependence temperament, the ability to work in a group, and helpfulness. Being adventurous and showing experiment-seeking behaviors have occasionally been reported. It is expected that this field will reach its ideal application with the completion of personality studies in sports.

Authors' Contribution

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Competing Interests

All of the authors declare that they have no conflict of interests.

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