THE RELATIONSHIP BETWEEN BIG-FIVE PERSONALITY FACTORS, THINKING STYLE AND SELF-EFFICACY AMONG SPORTS MANAGEMENT STUDENTS

Georgeta MITRACHE\textsuperscript{1*}, Elena MIHĂIŢĂ\textsuperscript{1}, Sorina CERNĂIANU\textsuperscript{2}, Ana-Maria VASILIU\textsuperscript{1*}, Diana Ligia TUDOR\textsuperscript{1}

\textsuperscript{1} National University of Physical Education and Sports, Faculty of Physical Education and Sport, Bucharest, Romania
\textsuperscript{2} University of Craiova, Faculty of Physical Education and Sport, Craiova, Romania
*Corresponding author: ana_vasiliu85@yahoo.com

Abstract. The purpose of this study is to create a psychological profile of students in the Sport Management from the National University of Physical Education and Sports, in terms of the Big Five personality superfactors, Thinking Style (i.e. rational versus irrational beliefs) and (perceived) Efficacy and to study the degree of association between these factors. The following hypotheses were formulated: 1) There are significant correlations between the Big-Five model superfactors (Extraversion, Agreeableness, Conscientiousness, Emotional Stability and Autonomy) and Self-efficacy, in the case of Sports Management students; 2) There are significant correlations between the Big-Five model superfactors (Extraversion, Agreeableness, Conscientiousness, Emotional Stability and Autonomy) and Thinking Style: Irrational Cognitions (Demandingness in the form of ‘musts’, Low Frustration Tolerance, Self-Downing and/or global evaluation, Global Score Attitudes and Beliefs) in the case of students in the Sport Management Specialization; 3) There are significant correlations between Self-Efficacy and Thinking Style (i.e. Irrational Cognitions: Demandingness in the form of ‘musts’, Low frustration tolerance, Awfulizing, Self-downing and/or global evaluation, Attitudes and Beliefs Global score) in the case of Sport Management students. The participants in the research were 39 students in the Sports Management Specialization (28.21% female and 71.79% male) aged 19-23 years. The 5 Factor Personality Questionnaire (CP5F) and Attitudes and Beliefs Scale-II (ABS-II), both from the Computerized Platform for Psychological Assessment (CAS++, S.C.Cognitrom S.R.L. and the Self-Efficacy Scale (Schwarzer & Jerusalem) were applied. The correlates study led to confirmation of all three hypotheses.

Keywords: Big-Five model of personality, perceived self-efficacy, demandingness.

Received: 17 September 2023 / Revised: 29 October 2023 / Accepted: 28 November 2023 / Published: 30 December 2023

Copyright: © 2023 Mitrache, Mihăiţă, Cernăianu, Vasiliu and Tudor. This is an open-access article distributed under the terms of the Creative Commons Attribution (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) or licensor are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.

Introduction

Knowing the Big Five personality profile, thinking style (irrational/rational cognitions), perceived self-efficacy and the degree of association between these psychological dimensions, in the case of students in the Sport Management Specialization, provides the possibility of a deeper understanding of how they adapt to the academic environment, as well as identifying possible difficulties in adapting and integrating into the professional
environment. In order for the sports industry to meet the challenges of modern society, it is necessary for the management system to be based on scientific knowledge and development, “at the basis of the sports industry we find sports activities and sports philosophy, as well as management in sport“ (Savić et al., 2018). A recent study, analyzing the personality of martial arts coaches, as well as some of the best coaches in the world, considers that „perhaps their most relevant personality traits and professional competencies are leadership abilities, locus of control, and independence in work“ (Predoiu et al., 2020).

Building a career in sport can be stressful, so knowing your personality profile, perceived self-efficacy, and identifying and managing irrational cognitions can help students cope more effectively with pressures and challenges. Also, at the level of the affective system, educating the rational thinking style has wide-ranging positive effects, such as generating functional emotions (as opposed to irrational thinking style, which generates dysfunctional emotions).

Knowledge of the particularities of the organisation of personality structure based on the Big-Five model identifies 5 superfactors (Extraversion, Agreeableness, Conscientiousness, emotional Stability and Openness). These can be seen as a continuum of values, varying between a negative and a positive pole, covering a wide range of personal characteristics. In the case of students in the Sport Management Specialisation, knowledge of the Big-Five model of personality provides important information on the person’s leadership qualities and management skills.

„The scientific management of sports training requires from the staff the knowledge of athletes in their complexity, and the factors of personality and autonomy are important in understanding the personality and behaviors of athletes“ (Mihăiță et al., 2023). Lounsbury, Sundstrom, Gibson, Loveland, and Drost compared Big Five personality traits and narrow traits (Assertiveness, Optimism, Work Drive, and Customer Service Orientation) scores of 9,138 managers with 76,577 non-managerial employees and their findings show that managers have significantly higher scores across all nine traits, all of which correlated significantly with managerial career satisfaction (Lounsbury et al., 2016).

Myszkowski, Storme, Davila and Lubart examine personality as a predictor of managerial creative problem solving and conclude that divergent-exploratory thinking, in which managers try to generate several new solutions to a problem is predicted by high openness to experience and low agreeableness, while convergent-integrative thinking, in which managers select and elaborate one creative solution, is predicted by high agreeableness (Myszkowski et al., 2015).

Donnelly, Iyer and Howell analyzed the association between Big Five personality traits and the subjective well-being and concluded that extraversion, conscientiousness and agreeableness are positively associated with subjective well-being (Donnelly et al., 2012).

Marcuson and Lundquist (2016) collected and analyzed 325 job advertisements for Swedish IT project managers in order to identify the most requested personality traits mirrored in the Big Five dimensions. Conscientiousness and extraversion were the most wanted traits for this category of employees.

In a survey applied to managers of small and medium-sized enterprises from Slovenia in order to see how the Big Five personality traits influence the business performance of companies, Antoncic et al. (2018) emphasized that: „Openness of managers can be predictive of growth and new value creation of their companies, with the new value creation impact
especially expressed in female-managed companies. Conscientiousness may not be crucial for performance, except for new value creation in females where this relationship can be negative. Extraversion can predict growth and profitability. Agreeableness can have negative effects on all performance elements. Neuroticism can be predictive of growth and profitability.

Considering learning style and personality traits as major factors that determine individual behavior and performance of managers, Li and Armstrong investigated the relationship between learning style and Big Five personality traits in international managers and their results indicate that only one of the five factor personality traits - extraversion is associated with experiential learning style (Li & Armstrong, 2015).

In a survey applied to 170 managers analyzing the employee engagement and manager self-efficacy, Luthans and Peterson reveal that employee engagement and manager self-efficacy may more positively influence manager effectiveness than either predictor by itself and manager’s self-efficacy is a partial mediator of the relationship between his or her employees’ engagement and the manager’s rated effectiveness (Luthans & Peterson, 2002).

Self-efficacy refers to “an individual's belief in his or her capacity to execute behaviors necessary to produce specific performance attainments (Bandura, 1977, 1986, 1997)” (American Psychological Association). Self-efficacy in managers refers to their ability to effectively manage their resources, achieve their goals, and fulfill their responsibilities in a work environment. It is a key component of leadership skills and is closely related to a manager's personal belief that he can succeed in the tasks and challenges he faces.

Knowing the level of perceived self-efficacy of students in the Sport Management specialisation provides information with immediate practical applicability, such as: understanding the motivational system, self-confidence and trust in others, stress management, problem solving, etc. Thus: managers with high self-efficacy are more motivated to achieve their goals and complete their tasks. They tend to see challenges as opportunities for growth, which motivates them to put in extra effort. Stress management is also an essential skill for optimising managers' performance capacity. Managers with high self-efficacy tend to cope better with stressful situations, making rational choices and managing resources efficiently.

Managers who are confident in their abilities positively influence team members and peers. This creates a work environment where employees feel more confident in their leader and are more likely to contribute. Self-efficacy contributes to the development of problem-solving and decision-making skills. Managers with confidence in their abilities will approach difficult situations with more wisdom and rationality. An essential component of self-efficacy is the education and development of a rational style in managers.

Self-efficacy and the development of a rational style are essential for managers because these qualities contribute to their success as leaders. Through self-reflection, planning, data-driven decision making, and effective communication, managers can increase their level of self-efficacy and positively influence the team and the organization as a whole.

Daniel David (2014) highlights the importance of educating a rational thinking style as the "Royal Road" to mental health, the cornerstone of developing the ability of performance in both academic and professional activities. According to David (2014), the rational thinking style involves flexibility of thought, a preferential, non-dogmatic formulation of needs
generating rational cognitive patterns such as frustration tolerance and unconditional self-
acceptance, as opposed to irrational thinking style, which involves a dogmatic formulation,
generating irrational cognitions such as catastrophizing, lack of frustration tolerance, self-
downing/global evaluation. In the Rational Emotive Behavioural Therapy (REBT) developed
by Albert Ellis, knowing the level of irrationality, identifying maladaptive irrational
cognitions and dysfunctional behaviours is central to organising further intervention in order
to correct them and for personal development (Ellis, 1999).

Educating the thinking style, in the sense of reducing irrationality and forming a rational
thinking style can have far-reaching effects for the development of personality, self-efficacy
and, generally, for the performance capacity of managers.

The aim of this study is to create a psychological profile of the students in the Sport
Management specialization at the UNEFS in terms of the Big Five personality superfactors,
Thinking Style (i.e., rational versus irrational beliefs) and (perceived) Self-efficacy, as well as
studying the degree of association between these factors.

In doing so, we started from the following hypotheses:

1) There are significant correlations between the Big-Five model super-factors (Extraversion, Agreeableness, Conscientiousness, Emotional Stability and Autonomy) and Self-efficacy, in the case of students from the Sports Management Specialization.

2) There are significant correlations between the Big-Five model super-factors (Extraversion, Agreeableness, Conscientiousness, emotional Stability and Autonomy) and the Thinking Style: Irrational Cognitions (Demandingness in the form of ‘musts’, Low Frustration Tolerance, Awfulizing, Self-downing and/or global evaluation, Attitudes and Beliefs Global Score) in the case of students from the Sport Management Specialization.

3) There are significant correlations between Self-efficacy and thinking style (i.e. irrational cognitions: Demandingness in the form of "musts", low frustration tolerance, Awfulizing, Self-downing/global evaluation, Attitudes and Beliefs global score) in the case of students from the Sport Management Specialization.

Methodology

The present research involved a cross-sectional, correlational design. The research
methods used in this study were: the observational method, the test method (i.e.
psychological test), the statistical-mathematical method.

Participants

Thirty-nine students from the Sport Management Programme participated in the research:
11 participants (i.e. 28.21%) were female and 28 (i.e. 71.79%) were male, aged between 19-
23 years, out of which first year students: 8 participants (2 girls and 6 boys) representing
20.51% of the total number of participants; 2nd year students: 14 participants (4 girls and 10
boys) representing 35.90% ; and 3rd year students: 17 participants (5 girls and 12 boys
representing 43.59% of the total number of students participating in the research.
**Measures**

In order to evaluate the personality super-factors and to develop the Big-Five model, the Five-Factor Personality Questionnaire (CP5F) developed by M. Albu (2008), from the Computerized Platform for Psychological Assessment (CAS++) (Miclea et al., 2009) S.C.Cognitrom S.R.L., was applied. The CP5F consists of 130 items, grouped into 6 scales: 5 of them assessing the Big-Five personality super-factors: Extraversion, Agreeableness, Conscientiousness, Emotional Stability and Autonomy and a Social Desirability scale.

Attitudes and Beliefs Scale-II (ABS-II) of the Computerized Platform for Psychological Assessment (CAS++) S.C.Cognitrom S.R.L. was applied to assess the level of irrationality, irrational cognitions, central constructs in the rational-emotive-behavioral therapy (REBT), a theory developed by Albert Ellis (Ellis, 1999). The ABS-II, developed by DiGiuseppe et al. (1988), comprises 72 items and is considered to be one of the most effective instruments currently available for assessing irrational/rational beliefs "related to three important life domains: comfort, approval and achievement" (Mogoase et al., 2013).

The Self-Efficacy Scale (SES), developed by Ralf Schwarzer and Matthias Jerusalem (see Schwarzer & Jerusalem, 1995), was used to assess the level of perceived self-efficacy. It consists of 10 items describing self-perceived personal effectiveness in relation to the work they do, and the research participants were asked to assess themselves using a 4-step Likert scale.

**Procedure**

The research was carried out between March and June 2023, within the Career Counselling and Guidance Centre of the National University of Physical Education and Sport Bucharest. The participants provided their informed consent to participate in this study. All tests were applied face-to-face, collectively, with no time limit.

The statistical processing involved: descriptive statistics, establishing the normality of the distribution (Shapiro-Wilk test) and correlational analysis (by calculating the Pearson and Spearman correlation coefficients).

**Results**

Assessing personality super-factors and developing the Big Five model is an important step in gaining an in-depth understanding of the individual traits that can influence how students adapt and succeed in the academic environment, and subsequently in the highly dynamic and competitive environment of Sport Management, information that can be used to guide students' personal development, training and career guidance.

Following the application of the 5-Factor Personality Questionnaire (CP5F), in a first stage descriptive statistics were performed for the 5 scales of the questionnaire (each scale being assigned to a superfactor of the Big-Five Model): Extraversion, Agreeableness, Conscientiousness, Emotional Stability and Autonomy (Table 1).
The results of the research participants on this test are expressed in T-scores, with T-score values above 60 being considered "high scores" and below 40 being considered "low scores". Table 1. Descriptive analysis for the Five Factor Personality Questionnaire (CP5F)

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
<th>Skewness</th>
<th>Kurtosis</th>
<th>Std. Error</th>
<th>Statistic</th>
<th>Std. Error</th>
<th>Statistic</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extraversion</td>
<td>39</td>
<td>53.2051</td>
<td>1,77141</td>
<td>11,06245</td>
<td>.008</td>
<td>-.637</td>
<td>.741</td>
<td></td>
<td></td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Agreeableness</td>
<td>39</td>
<td>53.2308</td>
<td>1,63360</td>
<td>10,20181</td>
<td>.274</td>
<td>.268</td>
<td>.741</td>
<td></td>
<td></td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>39</td>
<td>50.9487</td>
<td>1,73203</td>
<td>10,81653</td>
<td>.081</td>
<td>-1,260</td>
<td>.741</td>
<td></td>
<td></td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Emotional Stability</td>
<td>39</td>
<td>51.8974</td>
<td>2,08257</td>
<td>13,00566</td>
<td>-.333</td>
<td>-.799</td>
<td>.741</td>
<td></td>
<td></td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Autonomy</td>
<td>39</td>
<td>56.5128</td>
<td>2,10676</td>
<td>13,15669</td>
<td>.378</td>
<td>-1,112</td>
<td>.741</td>
<td></td>
<td></td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

From the data analysis it can be seen that for all 5 variables, the means fall within the population mean. The lowest being for the scale "Conscientiousness" (mConscientiousness = 50.94) and the highest being for the scale "Autonomy" (mAutonomy = 56.51).

Identifying and managing irrational cognitions in Sport Management students is particularly important for promoting personal and professional development, facilitating a healthier and more effective approach to the specific challenges of future professional activity. Table 2 illustrates the descriptive analysis following the Attitudes and Beliefs Scale-II (ABS-II). The following variables were studied: 'Demandingness', 'Low frustration tolerance', 'Awfulizing', 'Self-downing/global evaluation', 'Attitudes and beliefs Global score'.

Table 2. Descriptive Analysis for Attitudes and Beliefs Scale-II (ABS-II)

<table>
<thead>
<tr>
<th>Attitudes_and_Beliefs_global score (TOTAL)</th>
<th>N</th>
<th>Mean</th>
<th>Variance</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demandingness (DEM)</td>
<td>39</td>
<td>32.3590</td>
<td>2,24134</td>
<td>1.908</td>
<td>8.045</td>
</tr>
<tr>
<td>Low Frustration Tolerance (LFT)</td>
<td>39</td>
<td>30.7949</td>
<td>1.61353</td>
<td>-.705</td>
<td>.008</td>
</tr>
<tr>
<td>A wrongfulizing (AwF)</td>
<td>39</td>
<td>31.9487</td>
<td>1.34523</td>
<td>.226</td>
<td>2.344</td>
</tr>
<tr>
<td>Self-Downing - global evaluation (SD)</td>
<td>39</td>
<td>24.385</td>
<td>2.0220</td>
<td>.378</td>
<td>-1,401</td>
</tr>
</tbody>
</table>

From the data resulting from the assessment of the level of irrationality, it is found that in terms of the overall score for the Attitudes and Beliefs Scale, there is an average mAttitudes and Beliefs = 119.46, a value indicating an average level of irrationality. Also, for all ABS-II scales: "Demandingness", "Low Frustration Tolerance", "Awfulizing" and "Self-downing and/or global evaluation" the means are within the population mean.

In order to assess perceived self-efficacy, the Self-Efficacy Scale (SES) developed by Ralf Schwarzer and Matthias Jerusalem was applied. Perceived self-efficacy refers to a person's perception of his or her ability to perform the actions required for the various, concrete situations in which he or she is involved (Gheorghiu & Stărică, 2020), in the case of the students assessed, academic-type activities.
Table 3. Descriptive analysis for the General Self-Efficacy Scale (Schwarzer & Jerusalem)

<table>
<thead>
<tr>
<th></th>
<th>N Statistic</th>
<th>Mean Statistic</th>
<th>Std. Error</th>
<th>Variance Statistic</th>
<th>Skewness Statistic</th>
<th>Std. Error</th>
<th>Kurtosis Statistic</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Self-Efficacy</td>
<td>39</td>
<td>34,0000</td>
<td>.80735</td>
<td>25,421</td>
<td>-.590</td>
<td>.378</td>
<td>-.877</td>
<td>.741</td>
</tr>
</tbody>
</table>

Students from the Sport Management Specialization achieved an average self-efficacy = 34, indicating a high level of perceived self-efficacy.

We check if the data are normally distributed by applying the Shapiro-Wilk test. The results are shown in Table 4.

Table 4. The results of Shapiro-Wilk test

<table>
<thead>
<tr>
<th>Variables</th>
<th>Statistic</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitudes and beliefs scale</td>
<td>.948</td>
<td>39</td>
<td>.069</td>
</tr>
<tr>
<td>Demandingness in the form of 'musts'</td>
<td>.831</td>
<td>39</td>
<td>.000</td>
</tr>
<tr>
<td>Low Frustration Tolerance</td>
<td>.931</td>
<td>39</td>
<td>.020</td>
</tr>
<tr>
<td>Awfulizing</td>
<td>.902</td>
<td>39</td>
<td>.003</td>
</tr>
<tr>
<td>Self-Downing - global evaluation</td>
<td>.923</td>
<td>39</td>
<td>.010</td>
</tr>
<tr>
<td>Perceived Self-Efficacy</td>
<td>.906</td>
<td>39</td>
<td>.003</td>
</tr>
<tr>
<td>Extraversion</td>
<td>.961</td>
<td>39</td>
<td>.198</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>.967</td>
<td>39</td>
<td>.292</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>.933</td>
<td>39</td>
<td>.022</td>
</tr>
<tr>
<td>Emotional Stability</td>
<td>.933</td>
<td>39</td>
<td>.022</td>
</tr>
<tr>
<td>Autonomy</td>
<td>.927</td>
<td>39</td>
<td>.015</td>
</tr>
</tbody>
</table>

As shown in Table 4, the following variables have a normal distribution (p > 0.05): "Attitudes and Beliefs Scale" (p=0.069), "Extraversion" (p=0.198) and "Agreeableness" (p=0.292).

In order to see the relationship between Self-efficacy scale and other variables, we calculate the Spearman's rho coefficient (ρ) (see Table 2). For the interpretation of the correlation coefficient, we used the rule of thumb sizes from Rea and Parker (1992). As sterge ca pare mai pretentioasa tinand cont de date

Table 5. Correlations between Self-Perceived Self-Efficacy and irrational beliefs (Global Score, Demandingness in the form of "Must", Low Frustration Tolerance, Awfulizing, Self-Downing and/or global evaluation)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Attitudes and beliefs scale</th>
<th>Demandingness in the form of 'musts'</th>
<th>Low Frustration Tolerance</th>
<th>Awfulizing</th>
<th>Self-Downing - global evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Self-Efficacy</td>
<td>Correlation Coefficient</td>
<td>.695**</td>
<td>.617**</td>
<td>.635**</td>
<td>.487**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.002</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
We observe that there is a strong negative correlation, significant at the 0.01 level between "Perceived self-efficacy" and variables "Attitudes and Beliefs Scale", "Demandingness in the form of Musts", "Low frustration tolerance" and "Self-downing and/or global evaluation" (see Table 5). The lowest value of the correlation coefficient is between "Perceived self-efficacy" and the variable "Awfulizing" but, also in this case, the correlation is relatively strong, negative and significant (ρ = -0.487, p<0.01). The highest value of the correlation coefficient is observed between "Perceived self-efficacy" and "Global Score of Attitudes and Beliefs Scale".

Regarding the correlations between "Perceived Self-Efficacy" and the Big-Five model's superfactors, there is a strong positive association, less so with the "Agreeableness" superfactor (between Perceived Self-Efficacy and Agreeableness there is a statistically insignificant correlation).

Table 6. Correlation between Perceived Self-Efficacy and Big-Five Model Superfactors (Extraversion, Agreeableness, Conscientiousness, Emotional Stability and Autonomy)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Extraversion</th>
<th>Agreeableness</th>
<th>Conscientiousness</th>
<th>Emotional Stability</th>
<th>Autonomy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Self-Efficacy</td>
<td>Correlation</td>
<td>.424**</td>
<td>.048</td>
<td>.437**</td>
<td>.680**</td>
</tr>
<tr>
<td></td>
<td>Coefficient</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.007</td>
<td>.770</td>
<td>.005</td>
<td>.000</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

There is a negligible correlation between „Perceived Self-Efficacy“ and variable „Agreeableness,“ (ρ = 0.048, p > 0.05). On the contrary, a very strong positive correlation is observed between „Perceived Self-Efficacy“ and „Emotional Stability“ (ρ=0.803, p<0.01) (see Table 6).

Also, there is a relatively strong relationship between „Perceived Self-Efficacy“ and „Extraversion“ (ρ=0.424, p<0.01), „Perceived Self-Efficacy“ and „Conscientiousness,“ (ρ=0.437, p<0.01), „Emotional Stability“ and „Perceived Self-Efficacy“ registered a strong positive correlation (ρ=0.68, p<0.01) (Table 6).

Table 7 shows the correlations between each factor of the BIG-FIVE model with the Attitudes and Beliefs Scale variables. All correlations are negative. The "Conscientiousness", "Emotional Stability" and "Autonomy" scales show moderate and relatively strong negative correlations with the Attitudes and Beliefs Scale scales (see Table 7).

Thus, increasing the level of rationality in decision-making can lead managers to be better organised, to plan their activities more carefully and to ensure that they make decisions based on verified data analysis, which can contribute to the development of the 'Conscientiousness' super-factor.
Table 7. Correlation between each factor of the BIG-FIVE model with the dimensions of irrationality

<table>
<thead>
<tr>
<th>Variables</th>
<th>Attitudes and Beliefs Scale</th>
<th>Demandingness in the form of &quot;Must&quot;</th>
<th>Low Frustration Tolerance</th>
<th>Awfulizing</th>
<th>Self-Downing and/or global evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extraversion</td>
<td>Correlation Coefficient</td>
<td>-.220</td>
<td>-.148</td>
<td>-.237</td>
<td>-.228</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.178</td>
<td>.370</td>
<td>.147</td>
<td>.162</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>Correlation Coefficient</td>
<td>-.185</td>
<td>-.172</td>
<td>-.256</td>
<td>-.092</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.261</td>
<td>.295</td>
<td>.115</td>
<td>.579</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>Correlation Coefficient</td>
<td>-.348*</td>
<td>-.379*</td>
<td>-.454**</td>
<td>-.230</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.030</td>
<td>.017</td>
<td>.004</td>
<td>.158</td>
</tr>
<tr>
<td>Emotional Stability</td>
<td>Correlation Coefficient</td>
<td>-.404*</td>
<td>-.482**</td>
<td>-.480**</td>
<td>-.380*</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.011</td>
<td>.002</td>
<td>.002</td>
<td>.017</td>
</tr>
<tr>
<td>Autonomy</td>
<td>Correlation Coefficient</td>
<td>-.434**</td>
<td>-.409**</td>
<td>-.360*</td>
<td>-.422**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.006</td>
<td>.010</td>
<td>.024</td>
<td>.008</td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

Managers who score high on the Emotional Stability scale tend to be more rational and less influenced by emotions in their decision-making. Also, their increased ability to manage emotions may influence their ability to manage stress more effectively. In this regard, reducing and correcting irrational cognitions such as "Demandingness in the form of must" or increasing frustration tolerance may have positive effects on increasing emotional stability (we note from Table 7 that the strongest negative correlation is between "Emotional stability" and "Demandingness in the form of must" followed by the correlation between "Emotional stability" and "Low frustration tolerance").

Discussions and conclusion

Creating a psychological profile of students majoring in Sport Management from the National University of Physical Education and Sports in terms of the Big Five personality super-factors, Thinking Style (i.e. rational versus irrational beliefs) and (perceived) Self-Efficacy, as well as studying the correlation between these factors, is an approach that may have immediate practical applicability by offering the possibility of a deeper understanding of how they adapt to the academic environment and, in the future, to the professional environment.

Regarding the personality profile of sports managers, there are relatively few studies in the specialized literature. Macra-Osorhean et al. (2011) mentioned that Romanian sports managers manifested a high level of sociability. However, Stănescu et al. (2016) involving participants from the management master program developed by the Bucharest University of Physical Education and Sport, indicated that in terms of temperament traits, they are ambiverts. Also, starting from Jung's typology, Predoiu et al. (2021) found that
temperamental types with the highest scores, in the case of sports managers, are extraverted thinking (ET) and introverted thinking (IT).

Following the application of: the 5-Factor Personality Questionnaire (CP5F), the Attitudes and Beliefs Scale-II (ABS-II) and the Self-Efficacy Scale (SES), it was found that the means for the Big-Five personality model superfactors (Extraversion, Conscientiousness, Emotional Stability and Autonomy) as well as for the irrational beliefs (Global Score, Demandingness in the form of ‘musts’, Low Frustration Tolerance, Awfulizing, Self-Downing and/or global evaluation) are at the level of the population mean. In terms of self-efficacy, students in the Sport Management specialisation achieved an average indicating a high level of perceived self-efficacy. This suggests that these students have significant confidence in their abilities to be effective in the academic-type activities in which they are involved, as well as in the context of the sporting field, that they can overcome obstacles and that they can progress. A high level of self-efficacy can have multiple benefits, including a positive attitude toward challenges, resilience to stress, and the ability to adequately self-motivate so as to achieve goals.

The correlation study highlights:

- Strong positive correlations (significant at the 0.01 level) between "Perceived Self-Efficacy" and 4 of the Big-Five model's super-factors ("Extraversion", "Conscientiousness", "Emotional Stability" and "Autonomy"), data that confirm Hypothesis 1. This indicates that there is a strong, significantly positive association between perceived self-efficacy and these personality factors. In other words, people who feel more capable and effective in managing tasks tend to have higher levels of extraversion, conscientiousness, emotional stability and autonomy according to the Big-Five model.

- Relatively strong (significant at the 0.05 level) negative correlations between 3 of the Big-Five model super-factors: "Conscientiousness", "Emotional Stability", "Autonomy" and each of the dimensions of irrationality, confirming hypothesis 2. This indicates that there is a significant negative association between these personality factors and levels of irrationality. In other words, people with higher levels of conscientiousness, emotional stability and autonomy tend to have lower levels of irrationality.

- Strong (significant at the 0.01 level) negative correlations between "Perceived self-efficacy" and the variables: "Attitudes and Beliefs Scale", "Demandingness in the form of musts", "Low frustration tolerance" and "Self-downing and/or global evaluation". The highest correlation coefficient value is observed between "Perceived self-efficacy" and "Global Attitudes and Beliefs Scale Score" which indicates a strong negative association between self-perceived self-efficacy and the level of irrationality, data that confirms Hypothesis 3. This indicates that there is a significant association between perceived self-efficacy and these variables. In other words, individuals who feel more capable and effective in managing tasks tend to show lower levels of irrationality, lower frustration tolerance and self-downing.

Identifying maladaptive irrational cognitions and dysfunctional behaviours and intervening to correct them and reduce the level of irrationality can contribute to the development of personality and perceived self-efficacy of Sport Management students.
Authors’ Contributions: All authors have equally contributed to this study.

Funding: This research received no external funding.

Institutional Review Board Statement: The research was conducted according to the principles stated in the Declaration of Helsinki. The study was approved by the Ethics Committee of the National University of Physical Education and Sport in Bucharest, with no. 133/SG.

Informed Consent Statement: The written informed consent from the participants was obtained.

Data Availability Statement: Data are available upon request to the contact author.

Conflicts of Interest: The authors declare no conflict of interest.

References


Predoiu, R., Makarowski, R., Görner, K., Bota, A., Predoiu, A., Mitrache, G., & Grigore, V. (2020). Key personality traits of martial arts and world’s top coaches – impact on future martial arts specialists. *Archives of Budo, 16*, 129-142. WOS:000579413000001


