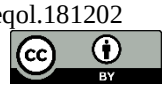
ORIGINAL ARTICLE

Prediction of mental health among cadet football players based on the emotional intelligence and perfectionism

Miroljub Ivanović [1]✉ • Uglješa Ivanović

Received: 1st May, 2018
Accepted: 11th July, 2018

DOI: 10.31382/eqol.181202



Abstract

The aim of this research was to examine in which way the constructs of emotional intelligence and perfectionism predict mental health of adolescent football layers. The sample consisted of 164 participants (average age 16.63 (± 10,21) years). The research was conducted in April 2018 and it included the cadet football players from Kolubara-Macva league in Serbia. Test of Emotional Management (TUE; Babić-Čikeš i Buško, 2014), Multidimensional Perfectionism Scale (MPS; Frost et al. 1990) and Mental Health Inventory (MHI-38; Veit & Ware, 1983) were used to generalize data. During the process of data analysis, metric characteristics of the measuring instruments were first tested using the method of internal consistency which was based on Cronbach's alpha coefficient. The empirical findings of the correlation analysis revealed that there is no link between emotional intelligence and mental health of football players, meaning that managing emotions is only linked to adaptive dimensions of perfectionism ($p \leq 0,01$). The obtained coefficient of multiple determination ($R = 0.27$) indicated that the group of predictors accounted for 27% of the variance of mental health, meaning that the perception of non-adaptive traits of perfectionism: (a) worry about mistakes, (b) dilemmas regarding one's own actions and (c) parental criticism contribute the higher number of mental health problems. In addition, it showed that the adaptive trait of perfectionism (organizational skills) directly contributes better mental health of cadet football player. The results of this study suggest that the variables of emotional intelligence and perfectionism have significant role in prediction mental health among adolescent football players.

Keywords mental health • worry about mistakes • dilemmas regarding one's own actions • parental criticism • being organized.

✉ miroljub.ivanovic@gmail.com

[1] College of Vocational Studies for Teachers and Professional Computer Scientists – Sirmium, Sremska Mitrovica, Serbia
[2] Telecom Serbia. Ltd., Belgrade, Serbia

Introduction

Even though, many researches have been conducted on the subject of emotional intelligence and perfectionism as predictors of mental health of adolescents, the researches concerning sport population in the period of mid-adolescence, when the biological, cognitive, social and emotional changes are the most dynamic in the life of an individual (physical growth, motoric development, mental and sexual maturing), or football players are comparably rare.

That is the reason it seemed important to examine the predictive contribution of the dimension of perfectionism in predicting the variance of mental health among cadet football players who, during this period of development, prepare for life as adults (Mayer, Caruso & Salovey, 2016). World Health Organization defines mental health as the state of well-being in which every individual realizes her or his potential can cope with normal stresses of life, can work

productively and fruitfully, and is able to make contributions to her or his community (WHO, 2014). However, this definition does not take into account that mental health contains factors which include emotions, intellect and optimal functioning within society, meaning that the care for the state of being where life functions work in a normal way presupposes the importance of emotional component and perfectionism for explaining the mental health of an athlete. Mental health can be positive and negative (Sommers-Spijkerman, Trompetter, Schreurs, & Bohlmeijer, 2012). Athletes who have positive mental health possess the competence of effectively facing stressful situations, taking part in their community, life satisfaction, realized mental well-being and adequate perception of reality. Negative mental health includes mental problems which cause athletes to have difficulties in functioning within the community, to lack suitable work competence and to lack life satisfaction and intensive social relationships (Rice et al., 2018).

Emotional intelligence is one of the current topics in the sports psychology. Tanchaisak (2018) defines emotional intelligence as the group of correlating competences which include personal emotions and emotions of others. There are four different dimensions of emotional intelligence: finding emotions, applying emotions, realizing emotional information and managing emotions (Rathwell & Young, 2018). The athlete who possesses these competences is considered to be adapted and emotionally competent, while the athlete who lacks them can have problems in emotional and social functioning (Singh, 2018). Emotional competences are a significant factor of mental health and well-being (Oproıu, 2013). Football players with high emotional intelligence have better perception of the state of happiness and have better mental health, which indicates that it is necessary for football clubs to include techniques of improving emotional intelligence (Sezen-Balçikanli & Sezen, 2018).

There are various findings regarding the correlation between mental health and perfectionism. Perfectionism is defined as a tendency of football player to set and realize non-objective high criteria and goals during the game (Eklund & Tenenbaum, 2014). Guenzi and Ruta (2013) consider the most important signs of perfectionism among athletes to be: emphasized high level of personal standards and worry about mistakes, dilemmas about the quality of their technique, excessive emphasis on precision. The research findings by Petruk (2013) showed significant positive correlation between perfectionism and depression, anxiety and stress, meaning that negative effects of these variables correlate with worry about mistakes, doubts about sport activities and parental criticism. On the other hand, the findings by Mili & Kshetrimayum Rojeet Singh (2018) indicate that athletes who possess high structural self-expectations, during which they remain optimistic in facing obstacles, at the same time achieve better results, unlike their non-perfectionist peers. On the contrary, the athletes without healthy and adaptive perfectionism are preoccupied with disbalance between their high, occasionally rigid standards and their own technique (Putukian, 2016). Besides, the symptoms of non-adaptive perfectionism can generate high level of stress and anxiety, negative model of thinking and, at times, suicidal ideas (Reardon & Factor, 2010).

Taking into account the irrefutable relevance of emotional processes and perfectionism in explaining mental health, as well as the lack of research on Serbian football population, the aim of this research was to test the potential role of variables of emotional intelligence and perfectionism in predicting the perception of mental health among the cadet football players. In accordance with the aim of the research, we proposed a hypothesis that lower emotional intelligence and unsuitable manifestations of perfectionism would explain weaker mental health, while the adaptive manifestations of perfectionism would be the positive predictor of mental health among adolescent football players.

Method

The research included 164 cadet football players, age 1 to 17 years (AM = 16.63, SD = 10.21). The pertinent sample was collected in seven football clubs of Kolubara-Macva league in Serbia. FC “Radnički” (Valjevo), FC “Budućnost-Krušik 2014” (Valjevo), FC “Senjak” (Valjevo), FC “Ribnica” (Mionica), FC “Železnicar” (Lajkovac), FC “Jedinstvo” (Ub) and FC “Rađevac” (Krupanj).

The data was collected in April 2018. This transversal research was anonymous and was conducted before practice, using the pen-and-paper method. The participants were told that the collected data would be used solely for the purpose of the research, and that they would be processes and analyzed on the group, not individual level. Clear instructions were written at the beginning of each questionnaire which participants had to read before

beginning to fill in the questionnaires. They were asked to give honest answers. The process of filling in the questionnaires lasted approximately 30 minutes.

Measuring instrument

Test of Emotional Management (Babić-Čikeš & Buško, 2014). It consists of 13 imagined everyday situations where various emotions are manifested - fear, sadness, disappointment, anger, jealousy, happiness and pride. For each given situation, four possible reactions were given, and they varied depending on how much they benefit a person. The test contained 52 items (13 situations, 13 x 4 possibilities). The participant's task was to evaluate the usefulness or uselessness of each given behavior on the scale from -3 to +3, in the reduction of unpleasant emotions and the intensifying or maintaining positive emotions in given situation.

Total test score represents the total of points on all items. The higher result means better management of emotions. The correctness of answers is defined based on expert criteria, where the correct answer brings two points, second best brings one point, and all the other answers bring zero points. The reliability of this test was expressed using Cronbach's alpha coefficient ($\alpha = 0.77$).

Multidimensional Perfectionism Scale (MPS-F: Frost, Marten, & Lahart, 1990). It consists of 35 items which evaluate perfectionism through six subscales: personal standards, worry about mistakes, parental expectations, dilemma regarding personal actions and organizational skills.

1) Personal standards contain seven items, with maximum score being 35 (for example, "I expect more from myself than other people").
2) Worry about mistakes contains nine items in total, with maximum theoretical score being 45 (for example, "I should feel bad when I make a mistake", "The less mistakes I make, the more people will love me").
3) Parental expectations include five items, with maximum score being 25 (for example, "Parents set me very high demands", "Only the exceptional results are valued in my family").
4) Parental criticism contains four items, with maximum score being 20 (for example, "I have a feeling that I never satisfied my parents demands").
5) Dilemma regarding personal actions contains four items (for example, "Even when I am careful about what I do, I often feel that it is not good enough").
6) Organizational skills contain six items in total, with maximum score being 30 (for example, "I am the type of person who is well organized").

The participant's task is to, on a five-point Likert-type scale (from 1- I fully agree to 5- I fully disagree), evaluate the level of agreement with individual items of the scale. Total score is represented as the sum of scores on all subscale. The higher result points to higher level of perfectionism. Cronbach's alpha in this research is ($\alpha = 0.89$). The reliability coefficient for personal standards is ($\alpha = 0.75$), for organizational skills ($\alpha = 0.68$), for parental pressure ($\alpha = 0.78$), for worry about mistakes ($\alpha = 0.73$) and for dilemma regarding persona action ($\alpha = 0.70$).

Mental Health Inventory (MHI-38: Veit & Ware, 1983). It evaluates mental health of clinical and non-clinical population. This model contains 38 items which measure two factors of mental health – positive (for example, "Within the last month, how often did future seem promising and full of hope?") and negative (for example, "Did you feel depressed during the last month?"). Global index of mental health represents complex measurement of mental health and it contains all the items from the inventory. The result is the sum of answers from all scales, but certain items are necessary to recode. The higher score means the higher level of global, meaning positive and negative mental health. Cronbach's alpha of the entire measuring instrument is ($\alpha = 0.93$), while the reliability of the subscale for negative mental health is ($\alpha = 0.94$), and for positive mental health is ($\alpha = 0.92$).

During data processing in this research, descriptive statistical methods (arithmetic mean, standard deviation and interval values – maximum and minimum, and theoretical range), skewness (SKEW) and kurtosis (KURT) were applied. The nature of the relationship between values is examined using Pearson's coefficient of linear correlation and hierarchical regression analysis. Kolmogorov-Smirnov non-parametric test was used to examine the normal distribution of the total score. Data was processed using SPSS for Windows, version 17. All conclusions were based on the level of statistical error of 5%.

Results

Table 1 shows descriptive indicators of the analyzed variables, normal distribution indicators (asymmetry, kurtosis, Kolmogorov-Smirnov non-parametric test). The values of skewness and kurtosis, as well as the values of Kolmogorov-Smirnov non-parametric test indicate that mental health inventory, test of emotional management and multidimensional perfectionism scale, with its six subscales, do not statistically significantly deviate from normal, and are within acceptable range for conducting parametric analyses (the obtain values of asymmetry range from -2 to 2, and of kurtosis < 3; Petz, Kolesarić, & Ivanec, 2012).

Table 1. Descriptive statistic parametric instruments

Variables	M	SD	Min	Max	Sk	SkSE	Ku	KuSE	K-Sp
Index of mental health	119.65	24.01	57	179	0.12	0.10	0.73	0.08	0.02
Management of emotions	59.93	9.12	25	79	0.23	0.10	0.19	0.08	0.10
Worry about mistakes	21.84	8.05	8	45	0.34	0.10	0.12	0.08	0.17
Dilemma regarding personal actions	10.04	3.82	4	20	0.44	0.10	0.16	0.08	0.15
Parental criticism	7.52	3.66	3	21	0.50	0.10	0.13	0.08	0.13
Parental expectations	12.06	4.83	4	24	0.66	0.10	0.11	0.08	0.08
Personal standards	22.02	5.68	10	36	0.37	0.10	0.20	0.08	0.14
Organizational skills	22.96	4.99	6	29	0.71	0.10	0.27	0.08	0.09

Legend: M – mean; SD – standard deviation; Min – minimum value of the variable; Max – maximum value of the variable); Sk – standardized skewness SkSE – skewness standard error; Ku – standardized kurtosis; KuSE – kurtosis standard error; K-Sp – value of Kolmogorov-Smirnov test on the level of $p \leq 0.01 = 0.20$.

The scores obtained on Mental Health Inventory and Test of Emotional Management indicate that the participants are of average mental health and emotional intelligence.

Table 2 shows the values of parametric Pearson's correlation coefficient, which examine the level of linear correlation between the used variables.

The calculated correlation coefficients indicate that the variable emotional management linearly only correlates with the adaptive dimensions of perfectionism. That points to the fact that there is a direct stochastic correlation between the aforementioned constructs, meaning that there is a same direction tendency (the values of both variables are either increasing or decreasing). In addition, non-adaptive dimensions of perfectionism have low and positive correlation with the construct index of mental health, except the variable parental expectations whose values of correlation coefficient with mental health equal zero ($r = 0.47$, $p \leq 0.09$). Latent variable (personal standards) also does not correlate with mental health, which points to the probability that certain values of one variable cannot be used to reach the conclusion regarding another variable, and therefore should not be interpreted in such sense. That also meant if the football players worry more about mistakes and have more dilemmas regarding their own actions, they perceive parental criticism more and have more mental health problems. Regarding adaptive dimensions of perfectionism, only the variable organizational skills has low, negative statistically significant linear correlation with the index of mental health, which leads one to assume that better organized football players have better mental health.

Table 2. Correlation of all variables

Variables	1.	2.	3.	4.	5.	6.	7.	8.
1. Management of emotions	–							
2. Worry about mistakes	.09	–						
3. Dilemma regarding personal actions	.03	.47**	–					
4. Parental expectations	-.06	.39**	.32**	–				
5. Parental criticism	-.02	.37**	.36**	.70**	–			
6. Personal standards	.14*	.48**	.29**	.27**	.18*	–		
7. Organizational skills	.15*	-.09	.05	-.01	-.13*	.28**	–	
8. Index of mental health	-.04	.30**	.33**	.07	.20*	-.05	-.32**	–

Legend: *p ≤ 0.05; **p ≤ 0.01

With the aim of defining the relations between the examined independent variable – predictor of perfectionism, and dependent variable – criterion of mental health, method of standard multiple regression was applied (Table 3).

Multiple correlation coefficient values R = 0.49 (p = 0.01), and the value of multiple determination coefficient (R squared) is R = 0.27 (p = 0.01), where the defined group of predictors accounted for 27% of the variance mental health. Seeing how the difference between Rand R2 is very small, the observed regression model can be generalized to include the entire sport population.

The calculated beta-coefficients are partial correlation coefficients of every predictor variable with criterion, and they point to the relevant influence of individual independent variable in regression model. In predicting criterion variable, out of four independent variables, three variables (organizational skills, worry about mistakes and dilemma regarding personal actions) statistically significantly influence criterion variable. The obtained values of beta-coefficient are of low intensity on the predictors worry about mistakes (β = 0.16, p = 0.05) and dilemma regarding personal actions (β = 0.19, p = 0.05), and that indicates that these variables negatively affect mental health of football players. At the same time, it is clear that the variable organizational skills (β = -0.20, p = 0.05) is statistically significant determinant of positive mental health of football players. On the other hand, the tested linear regression model did not prove to have statistically significant partial contribution in predicting scores of independent variables – parental criticism in explaining the variability (information) regarding mental health.

With the aim of identifying possible problem of high linear correlation within the group of predictor variables, multicollinearity diagnostics has been conducted. Tolerance and the factor of increased variance have been determined for each predictor variable. It has been calculated that none of the tolerance values was under 0.2, meaning that the factor of increased variance is not higher than the criterion 0.80. That would mean that there is no problem of correlation in this research (Hair, Black, Babin, & Anderson, 2010).

Table 3. Multiple regression analysis with the variables of perfectionism and evaluation of the significance of the regression model

Predictors	β	SE
Worry about mistakes	0.16*	0.06
Dilemma regarding personal	0.19*	0.03
Parental criticism	0.09	0.05
Organizational skills	0.20*	0.07
R = 0.49	R^2 = 0.27	

Legend: R – multiple correlation coefficient; R – multiple determination coefficient; β – standard partial regression coefficient; SE – standard error. * p < 0.05

Discussion

This research determined that there is no statistically significant correlation between management of emotions and mental health, which is not in accordance with the tested hypothesis that stated that "the football players with higher emotional intelligence will have better mental health, or that those with lower emotional intelligence will have more mental health problems". Previous researches on this correlation mostly did not provide compatible findings (Agans, Su, & Ettekal, 2018; Laborde, Dossevill, & Allen, 2015; Mann & Narula, 2017; Singh & Mili, 2015). Due to low experience of emotions, football players believe that they have joyful disposition, which helps them mind their mental health, but they do not take into consideration the fact that they can feel depressed or suicidal (Bethune et al., 2017; Yang et al., 2015). Based on this, it can be concluded that emotional experience and managing other people's emotions are two different components of the complex construct of emotional intelligence. People who are bad at perceiving other people's emotions can be less sensitive to stress (Derakhshanpour, VaezMousavi, & Reza Taheri, 2018; Gustafsson, Sagar, & Stenling, 2017). In addition, some researches (Fernández-Río, Cecchini, Méndez-Giménez, Terrados, & García, 2018; Gaudreau & Braaten, 2016) suggested that the tendency towards not thinking about thoughts and emotions, and bad psychological awareness correlate with the lower level of anxiety and high self-respect. They point out that avoidance and suppressing of emotions can short-term be useful for mental health. Certain dimensions of emotional intelligence do not always have to be useful since emotionally perceptive athletes can be sensitive to negative influence of stress (Gustafsson, Sagar, & Stenling, 2017; Weinberg, Butt, Mellano, & Harmsion, 2017). Due to low level of perception of emotions, athletes believe that they are happy and that they protect their mental health because they do not take into consideration nor do they accept the fact that they could feel depressed. At the same time, with the aim of obtaining significant correlation between emotional intelligence and mental health other components of emotional intelligence besides ability should be included: various personality traits, motivational constructs, aptness of good motoric skills and various social skills (Clancy, 2016; Cowden, 2016; Holden, Pugh, & Schwarz, 2017). Besides, in order to achieve better level of emotional intelligence, the research where two different tests with coaches' self-evaluation should be conducted.

The social environment of athletes is of great importance to every athlete. Firstly, the athletes encounter a great deal of demands within their sport system which can become generators for psychological stress, meaning mental disorders (Nezhad & Besharat, 2018). Various factors can increase stress and cause athletes to have difficulties adapting, for example forming new motor relations with competition from other clubs, experiencing romantic love, adopting new sport techniques and cognitive and metacognitive skills needed for resolving problems on field (Fehr & Collin 2017; Lee & Chelladurai, 2016).

Depression is common mental disorder among athletes (Ayer, 2015). Also, high parental expectations and difficulties in adopting motor skills can generate stress (Moen, Giske & Hoigaard, 2015). The research by Ströhle (2018) did not determine correlation between emotional intelligence and mental health because the football players were not giving correct answers on the test of emotional management and did not know to identify what is useful or harmful in the given situations. However, that does not mean that they use the same competences and manifestations to reduce stress and positively affect their mental health in objective life situations (Ring & Kavussanu, 2018; Meneghel, Salanova & Martínez, 2016).

On the other hand, this research determined positive correlation between emotional intelligence and adaptive traits of perfectionism (organizational skills and personal standards). That matches earlier researches where the perfectionist strivings of rugby players correlate positively with the dimension of emotional intelligence, while perfectionist concerns correlate negatively with the dimension of emotional intelligence (Gouttebarge, Kerkhoffs, & Lambert, 2016).

In addition, the results of this research indicate that the non-adaptive traits of perfectionism are in relevant correlation with mental health, meaning that football players who worry more about mistakes, have more dilemmas regarding personal actions and experience higher parental criticism have negative mental health, which proves the tested hypothesis. When it comes to adaptive traits of perfectionism (personal standards), no correlation with mental health was determined, but organizational skills do negatively correlate with mental health. The obtained findings are in accordance with the results that show

that negative perfectionism is a risk factor of depression and anxiety, while positive perfectionism is the construct of protection (Rice et al., 2016). To add, negative results of perfectionism correlate with the traits which include worry about mistakes, parental expectations, parental criticism and dilemma regarding personal actions, while personal standards and organizational skills correlate with positive components: orientation towards success, motivation to achieve a goal and commitment to goal (Gano-Overway, Steele, Boyce, & Whaley, 2017; Hammond, Gialloreto, Kubas, & Davis, 2013). Thus, it is expected that personal dimensions of perfectionism assume too high, non-objective goals which athlete sets for himself/herself, and that can cause depression due to inability to accept personal mistakes.

The conducted research has certain methodological limitations which should be taken into account during generalization of conclusions. Firstly, the research is correlational which means that causal conclusions cannot be reached. Next, the research did not examine the relations of various constructs of protection with positive and negative mental health, which is needs to be done in further research. In addition, the lack of research and participants' self-evaluation, their honesty and motivation, means that there is a possibility that they were giving socially acceptable answers.

Finally, it should be added that this research, despite certain limitations, has a number of advantages, theoretical contributions and practical implications. The biggest advantage of this research is the non-adaptive component perfectionism which disturbs the mental health of athletes. Therefore, it is advisable that adolescent football players who possess visible negative perfectionism first of all notice their negative way of thinking and then reevaluate their method of thinking so as not to measure their own value on the basis of their competence, since that sort of negative thinking causes automatic negative thoughts. That way, there will be less anxiety and more concentration, mood will improve, and junior football players will be more intense in their effectiveness and acquiring new motor skills and that will improve their mental health.

Conclusion

High internal consistency (Cronbach's alpha) points to the fact that the applied measuring instruments Test of Emotional Management, Multidimensional Perfectionism Scale and Mental Health Inventory are reliable and applicable in theory and practice on Serbian sport population. Based on the obtained empirical results of the Pearson's correlation coefficient, it can be said that the variable emotional intelligence does not linearly correlate with mental health. In addition, the value of the coefficient of multiple determination is 0.27, which means that the system of predictor variables (worry about mistakes, dilemma regarding personal actions and parental criticism) can predict 27% of mental health variability. On the other hand, the predictor variable organizational skills i.e. adjusted characteristic of perfectionism, is beneficial to the metal health of cadet football players. Therefore, the findings of correlation and regression analysis shown in this study give a new perspective to, up until now, insufficiently examined correlation between emotional intelligence, perfectionism and mental health. They represent only one of possible starting points for the process of researching the relations between emotional intelligence, perfectionism and mental health in adolescent population of football players, and can encourage further research of this phenomenon which would validate the used instrument on the greater sample of participants of both sexes in other areas of Serbia.

References

Agans, J. P., Su, S., Ettekal, A.V. (2018). Peer motivational climate and character development: Testing a practitioner-developed youth sport model. *J. Adolesc*. *62*,108–115. DOI: 10.1016/j.adolescence.2017.11.008.

Amanendra, M., & Bani, N. (2018). Positive Psychology in Sports: An Overview. *International Journal of Social Science*, *6*(2), 153–158. DOI: 10.5958/2321-5771.2017.00017.5

Ayer, N. (2015). Interpersonal Dynamics in Sport. *Illuminare*, *13*, 26–38.

Babić-Čikeš, A., & Buško, V. (2015).*Emocionalna inteligencija u ranoj adolescenciji: korelati sposobnosti upravljanja emocijama i predikcija školskog uspjeha*. *Društvena istraživanja*, 24(1), 21–45.

Bethune, A., da Costa, L., van Niftrik, C. H. B., & Feinstein, A. (2017). Suicidal Ideation After Mild Traumatic Brain Injury: A Consecutive Canadian Sample. *Arch Suicide Res*, *21*(3), 392–402. DOI:10.1080/13811118.2016.1199990

Clancy, R. B., Herring, M. P., MacIntyre, T. E., & Campell, M. J. (2016). A review of competitive sport

motivation research. *Psychology of Sport and Exercise, 27,* 232–242. DOI: 10.1016/j.psychsport.2016.09.003

Cowden, R. G. (2016). Mental Toughness, Emotional Intelligence, and Coping Effectiveness an Analysis of Construct Interrelatedness Among High-Performing Adolescent Male Athletes. *Perceptual and motor skills, 123*(3), 737–753.

Derakhshanpour, A., VaezMousavi, M., & Reza Taheri, H. (2018). Effect of Special Cognitive-Behavioral Intervention on Commitment to Exercise and Mental Health. *Global Journal of Health Science, 10*(5), 78–87. DOI: 10.5539/gjhs. v10n5p78

Duranovic, M. (2013) Obitelj i vršnjaci u životu adolescenata. *Napredak*, 154(1/2), 31–46.

Eklund, R. C., & Tenenbaum, G. (2014). *Encyclopedia of Sport and Exercise Psychology*. Los Angeles: SAGE.

Fehr, Collin M. (2017). *Examining the coach-athlete relationship as a predictor of ncaa student-athlete satisfaction.* Nepublikovana doktorska disertacija. Missoula: ScholarWorks at University of Montana.

Fernández-Río, J., Cecchini, J. A., Méndez-Giménez, A., Terrados, N., & García, M. (2018). Understanding olympic champions and their achievement goal orientation, dominance and pursuit and motivational regulations: A case study. *Psicothema, 30*,1, 46–52. DOI: 10.7334/psicothema2017.302

Frost, R.O., Marten, P., & Lahart, C. (1990) The dimensions of perfectionism. *Cognitive Therapy and Research, 14*, 449–468.

Gano-Overway, L. A., Steele, E., Boyce, B. A., Whaley, D. (2017). Exploring relationships between the coach-initiated motivational climate and psychological coping skills over the high school American football season. *Int. J. Sports Sci. Coach. 12*, 790–794. DOI: 10.1177/1747954117738873.

Gaudreau, P., & Braaten, A. (2016). Achievement goals and their underlying goal motivation: Does it matter why sport participants pursue their goals? *Psychologica Belgica, 56*(3), 244–268. DOI. org/10.5334/pb.266

Gouttebarge, V., Kerkhoffs, G., & Lambert, M. (2016). Prevalence and determinants of symptoms of common mental disorders in retired professional Rugby Union players. *European Journal of Sport Science, 16*(5), 595–602. DOI: 10.1080/17461391.2015.1086819

Guenzi, P., & Ruta, D. (2013). *Leading Teams – Tools and Techniques for Successful Team Leadership from the Sports World*. New Jersey: John Wiley & Sons.

Gustafsson, H., Sagar, S. S., & Stenling, A. (2017). Fear of failure, psychological stress, and burnout among adolescent athletes competing in high level sport. Scand. *J. Med. Sci. Sports. 27*, 2091–2102. DOI: 10.1111/sms.12797.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis: A Global Perspective*, 7th Edition. New Yersey: Pearson Education Inc., Upper Saddle River.

Hammond, T., Gialloreto, C., Kubas, H., & Davis, H. H (2013). The prevalence of failure-based depression among elite athletes. Clin J Sport Med 23 (4):273–277. DOI: 10.1097/JSM.0b013e318287b870

Holden, S. L., Pugh, S. F., & Schwarz, N. A. (2017) Achievement motivation of collegiate athletes for sport participation. *Int. J. Sports Sci.7*, 25–28. DOI: 10.5923/j.sports.20170702.01.

Laborde, S., Dossevill, F., & Allen, M. S. (2015). Emotional intelligence in sport and exercise: A systematic review. *Scandinavian Journal of Medicine & Science in Sports, 26*(8), 862–874. DOI:10.1111/sms.12510

Lee, Y. H., & Chelladurai, P. (2016). Affectivity, emotional labor, emotional exhaustion, and emotional intelligence in coaching. *J. Appl. Sport Psychol. 28*, 170–184. DOI: 10.1080/10413200.2015.1092481.

Mann, A., & Narula, B. (2017). Positive psychology in sports: An overview. *Int. J. Soc. Sci. 6*,153–158. DOI: 10.5958/2321-5771.2017.00017.5.

Mayer, J. D., Caruso, D. R. & Salovey, P. (2016). The Ability Model of Emotional Intelligence: Principles and Updates. *Emotion Review, 8*(4), 1–11. DOI: 10.1177/1754073916639667

Meneghel, I., Salanova, M., & Martínez, I. M. (2016). Feeling good makes us stronger: How team resilience mediates the effect of positive emotions on team performance. *J. Happiness Stud. 17*, 239–255. DOI: 10.1007/s10902-014-9592-6.

Mili, A., & Kshetrimayum Rojeet Singh (2018). Comparative study on emotional intelligence among general education, physical education and athletes. *International Education & Research Journal*, *2*(10), 74–77.

Moen, F., Giske, R., & Hoigaard, R. (2015). Coaches' Perceptions of how Coaching Behavior affects Athletes: An Analysis of their Position on Basic Assumptions in the Coaching Role. *International Journal of Learning, Teaching and Educational Research, 11*(1), 180–199.

Mohammad Ali Salehi Nezhad &Mohammad Ali Besharat (2018). Relations of resilience and hardiness with sport achievement and mental health in a sample of athletes. *Procedia - Social and Behavioral Sciences, 5*, 757–763.

Oproıu, I, (2013). A Study on The Relationship Between Sports and Aggression. *Sport Science Review, 22*(1–2), 33 – 48. DOI:10.2478/ssr-2013-0003

Petruk, I. (2013). Post-Workout Recovery and Psychophysical Characteristics of Sportsmen. *American International Journal of Contemporary Research, 3*(9), 14–17.

Petz, B., Kolesarić, V., i Ivanec, D. (2012). *Petzova statistika*. Jastrebarsko: Naklada Slap.

Putukian, M. (2016). The psychological response to injury in student athletes: a narrative review with a focus on mental health. *British Journal of Sports Medicine Journal, 50*(3),145–148. DOI: 10.1136/bjsports-2015-095586

Rathwell, S., & Young, B. (2018). Athletes' Perceptions of Positive Development Resulting from Canadian

Intercollegiate Sport: A Content Analysis. *The Qualitative Report*, *23*(2), 470–492.

Reardon, C. L., & Factor, R. M (2010) Sport psychiatry: a systematic review of diagnosis and medical treatment of mental illness in athletes. *Sports Medicine*, *40*(11), 961–980. DOI: 10.2165/11536580-000000000-00000.

Rice, S. M., Parker, A. G., Rosenbaum, S., Bailey, A., Mawren, D., & Purcell, R. (2018). Sport-Related Concussion and Mental Health Outcomes in Elite Athletes: A Systematic Review. *Sports Med 48*(2), 447–465. DOI: 10.1007/s40279-017-0810-3

Rice, S. M., Purcell, R., De Silva, S., Mawren, D., McGorry, P. D., & Parker. A. G (2016) The mental health of elite athletes: a narrative systematic review. *Sports Medicine*, *46*(9), 1333–1353. DOI: 10.1007/s40279-016-0492-2

Ring, C., & Kavussanu, M. (2018). The impact of achievement goals on cheating in sport. *Psychol. Sport Exerc. 35*, 98–103. Doi: 10.1016/j.psychsport.2017.11.016.

Sezen-Balçikanli, G., & Sezen, M. (2018). Professional Sports and Empathy: Relationship Between Professional Futsal Players' Tendency Toward Empathy and Fouls. *Physical Culture and Sport. Studies and Research*, *73*(1), 27–35. DOI: 10.1515/pcssr-2017-0003

Singh, K. R., Mili, A. (2015). Study of Emotional Intelligence among Players of Individual, Dual and Team Sports. *International Journal of Science and Research*, *12*(5), 1101–1106.

Singh, P. (2018). Aggression and will to win between university level male volleyball and American football players. *International Journal of Physiology, Nutrition and Physical Education*, *3*(1), 349–351.

Sommers-Spijkerman, M. P. J., Trompetter, H. R., Schreurs, K. M. G., & Bohlmeijer, E. T. (2018). Compassion-focused therapy as guided self-help for enhancing public mental health: A randomized controlled trial. *Journal of Consulting and Clinical Psychology*, *86*(2), 101-115. DOI: 10.1037/ccp0000268

Ströhle, A. (2018). Sports psychiatry: mental health and mental disorders in athletes and exercise treatment of mental disorders. *European Archives of Psychiatry and Clinical Neuroscience*, 7, 1–14. DOI: 10.1007/s00406-018-0891-5

Tanchaisak, K. (2018). Emotional intelligence for employees' motivation. *AU Journal of Management, 3*(2), 30–38. DOI: 10.12816/0036070

Veit, C. T., & Ware, J. E. (1983). The structure of psychological distress and well-being in general populations. *Journal of Consulting and Clinical Psychology*, *51*, 730-42. DOI:10.1037/0022-006X.51.5.730

Weinberg, R., Butt, J., Mellano, K., & Harmsion R. (2017). The stability of mental toughness across situations: Taking a social-cognitive approach. *Int. J. Sport Psychol. 48*, 280–302. DOI: 10.7352/IJSP.2017.48.280.

World Health Organization (2016). *Mental health: A state of well-being*. Geneva: WHO.

Yang, J., Peek-Asa, C., Covassin, T., & Torner, J. C. (2015). Post-concussion symptoms of depression and anxiety in division I collegiate athletes. *Developmental Neuropsychology*, *40*(1),18–23. DOI: 10.1080/87565641.2014.973499.

How to cite this article:

APA: Ivanović, M., & Ivanović, U. (2018). Prediction of mental health among cadet football players based on the emotional intelligence and perfectionism. *Exercise and Quality of Life, 10*(2), 13-21. doi:10.31382/eqol.181202

MLA: Ivanović, Miroljub and Uglješa Ivanović. "Prediction of mental health among cadet football players based on the emotional intelligence and perfectionism." *Exercise and Quality of Life* 10.2 (2018): 13-21.

Chicago: Ivanović, Miroljub, and Uglješa Ivanović. "Prediction of mental health among cadet football players based on the emotional intelligence and perfectionism." *Exercise and Quality of Life* 10, no. 2 (2018): 13-21.

.