HUMAN, TECHNOLOGIES AND QUALITY OF EDUCATION, 2023
https://doi.org/10.22364/htqe.2023.43

# THE RELATIONSHIP BETWEEN PERFECTIONISM AND SYMPTOMS OF DEPRESSION IN YOUNG ATHLETES

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## ABSTRACT

Perfectionism is an increasingly common negative tendency to set high goals and expectations, which may be the basis for the development of depressive symptoms in young athletes. The purpose of this paper is to identify aspects of perfectionism and their association with depressive symptoms in young athletes. The research was conducted with a sample of subjects ($n$ = 256) aged 9 to 17 years, coming from different parts of Croatia. The respondents were active athletes from different sports, divided including team ($n$ = 163) and individual ($n$ = 93) sports. Two questionnaires on mood and feeling were used for the study: The Short Version (MFQ) was used to assess depressive symptoms and the Sport Multidimensional Perfectionism Scale 2 (SMPS-2) to assess aspects of perfectionism. The questionnaire consisted of 43 items to which participants gave their agreement on a five-point Likert scale. Data were analyzed using descriptive analysis and multiple regression analysis. A correlation was found between the total depression variable and six variables of mean perfectionism (R2 = 0.28). Four variables (high expectations, failure = complete failure, failure = annoyance, and rarely feeling that training prepared me for competition) were related to self-referential perfectionism, while the other two variables (coach criticizes everything except perfect performance, only outstanding performance is appreciated by the coach) were related to the coach and his influence. These variables are related to high expectations in sports, failure, frustration after a mistake, perception of the coach as a critical person who sets too high goals, and participants blaming themselves for poor training.

***Keywords:*** *adolescents, coach, depression, athletes, expectations*

## Introduction

Leisure activities, including sports, have different impacts on children, adolescents, and young people. This varies depending on the risk and protection arising both from the individuals themselves and from their environment. Bioecological theory (Bronfenbrenner & Morris, 2007) explains how children's and young people's leisure time,

including playing sports, belongs to a microsystem that directly influences an individual's development. In the context of leisure sports activities, this influence can come from different sides, including coaches, peers, and the individual's self-perception in the sports in which they participate. Apart from positive influences, including being beneficial to mental health (Blažević et al. 2018), sports and sports activities can have a negative impact. Perfectionism proved to be a negative trend manifested in children and young people who still develop. This current trend has been increasing significantly since 1985 (Currian and Hill, 2019). It is manifested in setting high goals, having too much aspiration for order and schedule, showing concern, and being mistake-focused (Piuk & Macuka, 2019). Since perfectionism can be present in all aspects of a person's life (Flett and Hewitt, 2002), it is also visible in athletes. Apart from perfectionism, children and young people face symptoms of depression. These include lack of sleep or too much sleep, lack of concentration, lack of optimism, and feeling worthless (American Psychological Association, 2019). Many studies show that perfectionism is associated with the development of symptoms of depression (Smith et al., 2016; Smith et al., 2018). Perfectionism was also recorded in sports (Valdez & Juan, 2020) and can potentially develop symptoms of depression, which makes research into this area important. There is a wide range of factors that can negatively affect the individual in the sports environment. This paper aims to determine whether perfectionism or parts of perfectionism are correlated with symptoms of depression.

## Methods

A total of 256 athletes including both females ($F$ = 105) and males ($M$ = 151) coming from different parts of Croatia participated in the study. Research participants play different sports, including team ($N$ = 163) and individual ($N$ = 93) sports. The sample was the athletes of the clubs that were contacted. The target population was athletes aged 11 to 17. All available athletes of the mentioned population participated in the research with their voluntary consent, which constitutes a suitable sample. After the approval of the club to conduct research with their athletes, the consent of the parents and the athletes themselves was sought before conducting the research.

### Measurement

The survey was conducted in March and April 2022. Since the research participants are minors, the institutions and clubs were contacted prior to the research, and their consent was requested along with participants' and parental participation consent. A survey questionnaire was created using Google Forms and sent to the institutions and clubs that conducted the research. The questionnaire consists of three parts. The first part included participants' sociodemographic data: gender, age, county of residence, type of sports they play. In the second part, participants answered questions about perfectionism arising from the translated questionnaire Sport Multidimensional Perfectionism Scale-2 (SMPS-2) (Gotwals et al., 2003). This part consists of 43 items with which the participants

expressed the level of their agreement using the five-point Likert scale (1 – I completely disagree, 2 – I disagree, 3 – I neither agree nor disagree, 4 – I agree, 5 – I completely agree). Moods and feeling – Short form (SMFQ) (Angold et al., 1995) was used for symptoms of depression. On a scale ranging from 0 to 3 (0 – never, 1 – rarely, 2 – sometimes, 3 – always), participants assessed how frequent the situations addressed in the 13 items were in the previous two weeks. A total score higher than 12 represents a person with symptoms of depression. The reliability of the questionnaire was 0.93 Cronbach's alpha.

The results obtained from this scale are also consistent with clinical assessments of depression (Turner et al., 2014). For each participant, a sum of the response results was created in an Excel table along with a new variable – Total Depression.

### Data Analyzes

Statistical analysis of the obtained data was made using the Statistica 14 (version 14.0.0.15, TIBCO Software Inc). The collected data were processed by calculating *descriptive statistics*, which gave the basic statistical parameters. After descriptive statistics, a *multi-dimensional regression analysis* was applied, including backward regression to obtain the predictor variables that most influence the criterion variable.

## Results

**Table 1** Descriptive statistics

| Variables | *N* | Mean | Min | Max | Std.Dev. |
|---|---|---|---|---|---|
| High goals | 256 | 3.51 | 1 | 5 | 1.19 |
| Being the best | 256 | 3.82 | 1 | 5 | 1.14 |
| Competency | 256 | 4.23 | 1 | 5 | 0.98 |
| Best performance | 256 | 3.96 | 1 | 5 | 1.11 |
| My own high expectations | 256 | 2.86 | 1 | 5 | 1.16 |
| Top goals | 256 | 4.04 | 1 | 5 | 1.05 |
| High expectations | 256 | 3.43 | 1 | 5 | 1.10 |
| Exaggerating a mistake | 256 | 2.83 | 1 | 5 | 1.29 |
| Mistake = bad person | 256 | 2.57 | 1 | 5 | 1.36 |
| Mistake = lack of respect from others | 256 | 2.66 | 1 | 5 | 1.26 |
| Mistake = feeling upset | 256 | 2.52 | 1 | 5 | 1.25 |
| Better player in my category = failure | 256 | 2.96 | 1 | 5 | 1.22 |
| Failure during a match = lack of respect from others in sports | 256 | 2.58 | 1 | 5 | 1.23 |
| Mistakes = others don't think of me | 256 | 2.46 | 1 | 5 | 1.18 |
| Small mistake = poor overall performance | 256 | 2.59 | 1 | 5 | 1.20 |

| Variables | *N* | Mean | Min | Max | Std.Dev. |
|---|---|---|---|---|---|
| High parental goals | 256 | 2.57 | 1 | 5 | 1.25 |
| Feeling unable to attain high parental goals | 256 | 2.13 | 1 | 5 | 1.21 |
| Only a remarkable performance satisfies my family | 256 | 2.08 | 1 | 5 | 1.18 |
| Higher parental expectations than mine | 256 | 2.07 | 1 | 5 | 1.17 |
| Being criticized for the slightest mistake | 256 | 1.87 | 1 | 5 | 1.06 |
| I can't live with my parents' expectations | 256 | 1.84 | 1 | 5 | 1.08 |
| Parents expect excellence | 256 | 2.52 | 1 | 5 | 1.23 |
| Parental misunderstanding for making mistakes | 256 | 2.11 | 1 | 5 | 1.17 |
| Parental expectations of me obtaining higher scores than others | 256 | 2.65 | 1 | 5 | 1.35 |
| Coach criticizes everything but perfect performance | 256 | 2.46 | 1 | 5 | 1.18 |
| Only outstanding performance is appreciated by the coach | 256 | 2.61 | 1 | 5 | 1.27 |
| Feeling of not meeting the coach's expectations | 256 | 2.41 | 1 | 5 | 1.26 |
| Coach's high expectations | 256 | 3.32 | 1 | 5 | 1.16 |
| Coach expects excellence during the training/ match/competition | 256 | 3.61 | 1 | 5 | 1.13 |
| Insecurities during the pre-match training | 256 | 2.39 | 1 | 5 | 1.21 |
| Insecurities regarding the adequacy of the pre-match training | 256 | 2.23 | 1 | 5 | 1.11 |
| I rarely feel that training has prepared me for the match | 256 | 2.25 | 1 | 5 | 1.18 |
| Satisfaction with the pre-match training | 256 | 2.30 | 1 | 5 | 1.13 |
| I rarely feel satisfaction with the amount of the pre-match training | 256 | 2.32 | 1 | 5 | 1.18 |
| Indecision regarding the adequacy of the pre-match training | 256 | 2.37 | 1 | 5 | 1.20 |
| Pre-match routine | 256 | 3.30 | 1 | 5 | 1.30 |
| I follow a pre-match routine | 256 | 3.37 | 1 | 5 | 1.27 |
| I follow predetermined steps to prepare for the match | 256 | 3.39 | 1 | 5 | 1.19 |
| I follow a match or a competition routine | 256 | 3.40 | 1 | 5 | 1.26 |
| Preparation plans for the match/competition | 256 | 3.19 | 1 | 5 | 1.22 |
| Setting strategies for the match/competition | 256 | 3.35 | 1 | 5 | 1.20 |

*N – number of respondents, Mean – arithmetic mean of the results, Min – minimal answers to each question, Max – maximal answers to each question, Stv. Dev. – standard deviation.

**Table 2** Regression analysis of depression and perfectionism

| $R = 0.53$ ; $R^2 = 0.28$ ; Adj. $R^2 = 0.26$ ; Std. Err. est: 5.48 ; $F = 16.05$ ; $p < 0.00$ | | | | |
|---|---|---|---|---|
| **Variables** | ***B*** | **Beta** | ***t*** | ***p*-value** |
| High expectations | –0.19 | –1.06 | –3.42 | 0.00 |
| Mistake = complete failure | 0.22 | 1.08 | 3.46 | 0.00 |
| Mistake = feeling upset | 0.13 | 0.67 | 2.11 | 0.04 |
| Coach criticizes everything but perfect performance | 0.28 | 1.50 | 3.59 | 0.00 |
| Only outstanding performance is appreciated by the coach | –0.19 | –0.94 | –2.47 | 0.01 |
| I rarely feel that training has prepared me for the match. | 0.23 | 1.23 | 3.80 | 0.00 |

*$R$ – multiple correlations, $R^2$ – coefficient of determination, Adj. $R^2$ – adjusted coefficient of determination, Std. Err. est – standard error of estimation, $F$ – test value, $p$ – value of significance level of the $F$ test, $B$ – unstandardized partial coefficient, Beta – partial standardized coefficient of regression, $t$ – value of the t-test of partial regression coefficient, $p$-value. – significance level.

The results of the (*backward*) regression analysis of the predictor set of perfectionism variables with the criterion variable of total depression show a statistically significant correlation $R$ = .53. The model is significant at the level of p<.00 and explained with a 28% variance. *I set higher expectations than most athletes who play my sport, If I make any mistakes / If I fail in a competition/match, I consider this as unsuccessful as if I had completely failed, I should be upset if I make a mistake during the competition/match, I feel that the coach criticizes me if during the competition/match I had a bit worse performance, Only an outstanding performance is good enough for my coach,* and *I rarely feel that I have trained enough before the match/competition* are variables that have a significant contribution in explaining the criterion variable of total depression. The predictive variable of the athletes' perfectionism that most contributes to the explanation of the criterion variable of total depression of athletes is the variable *I feel that the coach criticizes me if during the competition/match I had a bit worse performance.* Its partial regression coefficient (Beta) is 1.50.

## Discussion

The aim of this paper was to determine whether there is a correlation between the occurrence of perfectionism and symptoms of depression in young athletes. It has been shown that the key link between perfectionism and symptoms of depression is in self-oriented perfectionism, but also in the influence of the coach. Considering that the correlation has been established, this is consistent with the research of Jensen et al., (2018) who also found a correlation between perfectionism and symptoms of depression in their research on a sample of professional athletes. The relationship between perfectionism and symptoms of depression is manifested through 6 obtained variables, four of which refer to self-oriented perfectionism while the other two refer to the coach and his influence. Perfectionism is considered to be multidimensional and it is important

to delineate its parts that can have a positive effect on the individual from those that have a negative impact. The results present perfectionism concerns related to analyzing mistakes and thinking about them (Stoeber and Rennert, 2008). This is evident in the variables related to focusing on a mistake, analyzing the training perceived as inadequate, and feeling upset about making a mistake. Such perfectionism is perceived as negative, as ultimately demonstrated by the fact that in this research it is associated with contributing to the development of symptoms of depression in athletes. A variable that belongs to personal perfectionism and is considered perfectionism strivings is the one that relates to setting high goals. It is believed that this is "positive" perfectionism that can improve a person's subjective well-being as a psychological adjustment (Stoeber and Childs, 2010). Setting one's own high standards also proved positive for motivation in sports according to a study by Moratidis and Michou (2011) on a sample of adolescents. Their results related to focusing on a mistake like in our research proved to be negative. In our study, this proved to be incorrect, because the above variable was the one that contributes to the development of the symptoms of depression, which is the opposite of the above claims. On the other hand, Hewitt et al. (2017) show that self-oriented perfectionism is a predictor of the development of depression over a long period. The insight into the results showed that one of the sources of perfectionism in athletes is actually their perception of the coach and his actions. The theory of the bioecological model (Bronfenbrenner and Morris, 2007) explains that there are various risk and protective factors in the environment of the child and young person that can positively or negatively affect them. These factors may act directly and indirectly. The athletes' sports environment indirectly influences them. Two perfectionism variables that do not arise from the athletes themselves are those focused on the other person – other-oriented perfectionism. If an individual with other-oriented perfectionism is solely taken into account, it is known that these persons require special treatment (Thomaes et al., 2008). On the other hand, a person who is negatively perceived can also be taken into focus. In this case, the coach proved to be a negative figure that causes negative consequences for the athlete. In the context of environmental impact, the coach is a risk factor for the child's development. As these variables are correlated with symptoms of depression, this is consistent with other recent scientific findings. Other-oriented perfectionism is considered to be a predictor of the development of internalized behavioral problems, which in this case proved to be true, because symptoms of depression were addressed (Chen et al., 2017). Several open questions can be asked to explain this impact. One of them certainly refers to pedagogical competences in kinesiologists as the educational basis for treating an athlete. On the other hand, the question arises about the effect of different coaching styles and their impact on the athlete. As this is a complex situation, additional research is needed both on other-oriented perfectionism and its impact on that person, as well as research on the relationship between coaches and players, coaching styles, and coach's pedagogical competences.

Surprising in this sample was the perception of the family, that is, the parents. Sevilla and Borra (2015) believe that parents are the reason for worry in the context of children's

development and negative influences, including perfectionism. In our case, parental pressure was not the reason for the development of perfectionism and consequently symptoms of depression.

## Conclusion

This research has shown that there are athletes who experience symptoms of perfectionism, and consequently symptoms of depression. It is evident that both the individual characteristics of the athlete and sports-related stimuli, such as the coach's influence on the athlete, are the cause. Since our participants are all adolescents, the results are not surprising, because in adolescence there are usually increased risks of developing behavioral problems, both externalized and internalized. Although the results are somewhat expected, it is necessary to pay additional attention to the annulation of negative impacts that come from the sport itself. This scientific research is a valuable starting point for limited scientific research on the development and existence of internalized behavioral disorders. In order to gain a clearer insight into the causes of behavioral disorders, this issue should be investigated also in a qualitative way.

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