Effect of Sports Perfectionism and Personality Factors in Shaping Attitude Towards Physical Education of School-Going Adolescents

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ARTICLE INFO	ABSTRACT
	Perspective – By giving adolescents, a positive outlet for their enthusiasm, physical education also improves their mental health, motor skills, and physical fitness. By encouraging socializing, it helps boys and girls form bonds, cooperate, and grow in empathy. Teens who are interested in sports are more likely to participate enthusiastically because they see physical education as a means of improvement, socialization, and leisure. Incorporating sports into physical education also helps teenagers manage stress and build self-confidence, which helps them deal with obstacles. Physical education fosters a lifetime enthusiasm for active lifestyles, lowers sedentary behaviour, and promotes holistic development, so the advantages go beyond health. Adolescents who match physical education with their interests and personality types develop vital life skills and healthier routines. **Method –** The present study was carried out through the ***descriptive survey method*** within a ***correlational research design.*** A sample of 706 school-going adolescents were randomly chosen from Government, Government Aided, and Government Sponsored Secondary and Higher Secondary Schools in West Bengal by ***multiphasic stratified random sampling technique***. (i) ***Attitude towards Physical Education and Sport Scale (Demirhan & Altay, 2001),*** (ii) ***Sports Multidimensional Perfectionism Scale (John, Dunn, et al., 2005)***, and (iii) ***Big Five Inventory (BFI), (Goldberg, 1993)*** were administered on the sample. **Results –** Subscales of Sports Perfectionism and Personality Factors have a significant effect on attitude formation towards physical education of school-going adolescents considering separately and as a whole. **Discussions and Conclusions –** The interplay of sports perfectionism and personality traits significantly influences school-going adolescents' attitudes toward physical education. By addressing perfectionistic concerns and leveraging positive personality traits, educators can create supportive and engaging physical education environments that promote lifelong fitness and well-being. **Keywords:** Attitude towards Physical Education, Sports Perfectionism, Personality Factors.

1. Introduction

A short introduction of the work is placed herewith.

1.1. Perspective

A comprehensive educational system must include physical education, which promotes mental health, social skills, and physical fitness. Teenagers' views toward physical education are impacted by some psychological and personality elements, such as their general personality qualities and sports perfectionistic impulses.

Teachers may create more inclusive and inspiring physical education programs by having a better understanding of these characteristics.

Examining how personality qualities and sports perfectionism shape school-age teenagers' views toward physical education offers important insights into how psychological characteristics affect physical activity participation. Adolescents' motivation and perception of physical education are directly impacted by sports perfectionism, which is characterized by traits like perfectionistic striving (a positive drive for excellence) and perfectionistic concerns (a fear of failure and criticism). While excessive worries can lead to worry and avoidance, positive striving encourages zeal and goal-oriented engagement.

According to the Big Five paradigm, personality attributes are also important. Through social engagement and focused effort, qualities like extraversion and conscientiousness improve involvement and positive attitudes. On the other hand, neuroticism, which is linked to stress and a fear of being judged, frequently leads to unfavourable opinions about physical education. Teachers and legislators may create physical education programs that address perfectionistic issues, encourage personality development, and make activities more inclusive and interesting by having a better knowledge of these dynamics. Students' attitudes toward physical education can be improved by implementing customized tactics such as encouraging teamwork, emphasizing fun over competitiveness, and goal-setting. This perspective emphasizes how crucial it is to treat psychological and personality issues to help teenagers develop a lifetime appreciation for physical fitness and well-being.

1.1.1. Objective of the Study
The main objective of the study was to ascertain the effect of Sports Perfectionism and Personality Factors in Shaping the Attitude Towards Physical Education of School-Going Adolescents.

1.1.2   Specific Objectives of the Study
The present study was designed to probe into the following specific objectives –
i. To construct a multiple regression equation to predict ***Attitude towards Physical Education*** with the help of different subscales of ***Sports Perfectionism*** and ***Personality Factors*** of the school-going adolescents, considering males and females as a whole;
ii. To construct a multiple regression equation to predict ***Attitude toward Physical Education*** with the help of different subscales of ***Sports Perfectionism*** and ***Personality Factors*** of the school-going male adolescents;
iii. To construct a multiple regression equation to predict ***Attitude towards Physical Education*** with the help of different subscales of ***Sports Perfectionism*** and ***Personality Factors*** of the school-going female adolescents.

Research Questions were –
i. What is the multiple regression equation to predict ***Attitude towards Physical Education*** with the help of different subscales of ***Sports Perfectionism*** and ***Personality Factors*** of the school-going adolescents **considering male and female school-going adolescents as a whole**?
ii. What is multiple regression equation to predict ***Attitude towards Physical Education*** with the help of different subscales of ***Sports Perfectionism*** and ***Personality Factors*** of the **male** school-going adolescents?
iii. What is the multiple regression equation to predict ***Attitude towards Physical Education*** with the help of different subscales of ***Sports Perfectionism*** and ***Personality Factors*** of the **female** school-going adolescents?

Research Hypotheses were –
H₁: There are statistically significant multiple regression coefficients to frame the equation to predict ***Attitude towards Physical Education*** with the help of different subscales of ***Sports Perfectionism*** and ***Personality Factors*** of the school-going adolescents **considering male and female as a whole**;

H₂: There are statistically significant multiple regression coefficients to frame the equation to predict ***Attitude towards Physical Education*** with the help of different subscales of ***Sports Perfectionism*** and ***Personality Factors*** of the **male** school-going adolescents;

H₃: There are statistically significant multiple regression coefficients to frame the equation to predict ***Attitude towards Physical Education*** with the help of different subscales of ***Sports Perfectionism*** and ***Personality Factors*** of the **female** school-going adolescents.

2. Acquaintances with the Psychological Constructs under Study

Let us be quickly acquainted with the psychological constructs used in the study.

2.1 Attitude towards Physical Education
Despite being a difficult concept to define, an attitude has a significant influence on behaviour through behavioural intentions. Childhood attitudes can influence the decisions we make about how active or inactive to are in our daily lives. Exercise is almost often followed by a pleasant mindset. Fitness has several advantages,

such as improved health, a feeling of well-being, stronger muscles, improved balance, and flexibility, the capacity to complete a race, or even just being able to keep up with kids.

The corpus of research on student attitudes in physical education has grown in the last several years. The correlation between student achievement in physical education **(Graham, 1995; Lee, 1997; Silverman, 1993; Subramaniam & Silverman, 2000),** attitudes toward future participation in physical activities outside of school **(Carlson, 1994; Ennis, 1996; Portman, 1995),** and the availability of information gained about students' attitudes toward physical education for developing curricula **(Cothran & Ennis, 1998)** may also be responsible for the increase in interest. **Luke and Cope (1994)** assert that student-cantered programs that are tailored to their interests and needs have an impact on how well teachers teach, support students' understanding of the value of physical education, and help them form positive attitudes. The way that teachers behave, the classroom, the family, and the school administration all have a significant impact on how kids establish their attitudes **(Aicinena, 1991).** Students must engage in one-on-one interactions with their teachers to cultivate a positive mindset **(Figley, 1985).** Teachers should guarantee that students actively participate in class activities **(Aicinena, 1991).** When they believe the teacher is not paying enough attention, the students get negative. Positive attitude development is influenced by a variety of factors, including the physical environment, peer behaviours, evaluation, exercise partner, learning stages, and activity difficulty.

2.2 Sports-Perfectionism

Perfectionism is a broad personality style that is defined in psychology by an individual's concern with aiming for flawlessness and perfection, along with critical self-evaluations and worries about other people's assessments. Initially, some psychologists believed that it had many positive and bad elements. However, it is better understood as a complex and multilayered personality feature.

Positive Sports Perfectionism in people who have unreasonable expectations of themselves and are rarely happy with their work are referred to as perfectionists **(Frost, Marten, 1990).** A wide range of detrimental psychological anguish can be experienced by perfectionists. Perfectionism has been connected in the past to some conditions, including depression **(Blatt & Schichman, 1983),** illogical beliefs **(Flett, Hewitt, Blankenstein & Koledin, 1991),** social anxiety, life dissatisfaction **(Flett, Hewitt, Blankenstein & Gray, 1998),** and addiction to medication and physical activity. Fear of failing is the main motivator for perfectionists, who are unable to find satisfaction in what the average person would consider a work well done. According to **Frost, and Marten, (1990)**, a key difference between neurotic perfectionistic inclinations and normal tendencies is that the former may tolerate slight imperfections in one's performance and yet view it as successful. However, due of strong organizational abilities and high personal standards, positive perfectionism can offer the motivation that propels outstanding accomplishments **(Frost & Marten, 1990).**

2.3 Personality Factors

A person's personality is a structured collection of habits, traits, attitudes, and ideas that are arranged both internally to connect to motivation, objectives, and different facets of selfhood, and externally into roles and titles. Understanding someone's personality can help us predict how they will act and feel in different situations. Our personalities set us apart from others. Being aware of the various personalities among employees is useful while managing their behaviour within the company.

Many theoretical stances have been taken in the conceptualization of personality. Each has added to our knowledge of how people differ from one another in terms of their experiences and behaviours. The Big Five represent broad categories of character attributes. The following is a typical description of these five categories:

(a) The tendency toward **extraversion** Specific characteristics like being chatty, gregarious, and forceful are included in the general category of extraversion. These encompass attributes like gregariousness, talkativeness, emotional expressiveness, and high levels of excitability.

(b) Agreeableness - This component covers dispositions like compassion, love, and empathy. It also encompasses more commonplace behaviour like compassion, affection, trust, generosity, and affection.

(c) Conscientiousness - This encompasses qualities such as meticulousness, organization, and fun. This dimension is characterized by goal-directed behaviour, strong impulse control, and high degrees of thoughtfulness. Conscientious people are usually well-organized and detail-oriented.

(d) Neuroticism - Also referred to as emotional stability, this can occasionally be inverted. Features like stress, anxiety, and mood are included in this dimension. Emotional instability, anxiety, moodiness, impatience, and sorrow are common in people who score highly on this attribute.

(e) Openness to Experience - This trait is also known as intellect/imagination or intellect of intellect. This dimension covers qualities like being perceptive and imaginative, as well as having a broad range of interests.

3. Review of Allied Literature

The goal of this study was to find out how adolescents who were in school at the time formed their views toward physical education with personality traits and sports perfectionism. This analysis focused on the corpus of literature that serves as the foundation for the ongoing study. By analysing related articles, the true wisdom of research work is exposed. For researchers who might come across potentially hazardous situations, this study

provides a thorough strategy and techniques. This could perhaps provide answers for similar issues. The two subsections that make up the literature review are (a) The relationship between Sports Perfectionism and Physical Education; and (b) The relationship between Personality Factors and Physical Education.

3.1 The Relationship between Sports Perfectionism and Physical Education

Ali, Adhikari, and Nandy (2012) discovered a link between trait anxiety and sports perfectionism. According to their research, trait anxiety decreases when concern about mistakes rises when personal standards rise. Additionally, when perceived parental pressure rises, trait anxiety rises as well. Additionally, when perceived coach pressure rises, trait anxiety rises as well. Anxiety traits lessen. Simultaneously, research was conducted to determine whether a physical education training program may reduce management sport perfectionism **(Chakraborty and Adhikari, 2014).** Perfectionism is essentially a bad thing that makes athletes and exercisers experience maladaptive results. This problem is complicated, though, because it's undeniable that many sports demand flawless performance for the Athletes. Perfectionist aspirations, on the other hand, exhibit distinct positive associations with self-assurance, success hope, goal orientations, and performance in training and competition. According to **Stoeber (2011),** only concerns about perfection are maladaptive, but striving for perfection can also be a healthy element of aiming for excellence.

3.2 The Relationship between Personality Factors and Physical Education

When it comes to our children's personality development, physical education is essential. It lowers their chance of health issues and promotes mental clarity, physical fitness, and physical activity. It makes it possible for them to live in a competitive and healthy atmosphere. It grows in their socializing, leadership, sportsmanship, self-control, and teamwork **(Kant, 2014).** Sports and physical education rank among the most crucial activities for personality development. Physical education fosters the development of the whole person including mental, social, and physical. Power, speed, agility, balance, and response time are all components of physical fitness associated to a sport or talent. Participating in different games and sports raises an individual's degree of fitness, according to **Corbin (2001).** Every game requires us to run a certain distance in order to play, exercising every part of our body and enhancing our strength, endurance, speed, flexibility, and neuromuscular coordination. These improvements only come from playing games and sports, which helps us become more fit. Sports and physical culture have a big impact on how people develop as people.

4. Methods

The present study was carried out through a descriptive survey method within an ex-post-facto research design. The details regarding the sample, tool, procedure of data collection, and statistical technique were reported hereunder.

4.1 Research Design
The research design that was adopted in the present study is presented hereunder.

4.1.1 Variables
In the present study following variables were considered.

4.1.1.1 Independent Variable
An independent variable must have at least two values. Each value of the independent variable is called a level. In the **multiple regression analysis** of the present study the **"independent variables"** were the subscales of the **"Sports Perfectionism"** and **"Personality Factors"**. The subscales of Sports Perfectionism were – (a) Personal Standards, (b) Concern Over Mistakes, (c) Perceived Parental Pressure, and (d) Perceived Coach Pressure. The Personality Factors were – (a) Extraversion, (b) Agreeableness, (c) Conscientiousness, (d) Neuroticism, and (e) Openness.

4.1.1.2 Dependent Variable
In the **multiple regression analysis** of the present study the **"dependent variable"** was the **"Attitude towards Physical Education".**

4.2 Sample
Multiphasic stratified Random Sampling Techniques were used to create a representative sample. A total of 706 school-going adolescents (396 female and 310 male) were chosen at random from Government, government-aided, and government-sponsored secondary and Higher Secondary Schools in West Bengal, India for the current study.

4.3 Tool of Research

The present study employed the subsequent research instrument to gather data. Using criteria like relevance, appropriateness, validity, reliability, and suitability, the instrument was chosen. Below is a summary of the tool.

4.3.1 Attitude towards Physical Education and Sport Scale (Demirhan & Altay, 2001)

The **"Attitude toward Physical Education Scale"** is created by **Demirhan and Altay (2001)** specifically for Turkish pupils. This is a self-report tool that is administered using paper and pencil. It has a 5-point Likert-type scale, and the responses range from 1 (strongly disagree) to 5 (strongly agree), which is added up over 24 items to give a range from 24 to 120.

Here the mean score of the scale was normalized and the normalization procedure was as follows:

Normalized mean = Mean of the item responses in total scale/Total number of items in the scale.

Then, the normalized mean falls within the range extending from 1 to 5 with 3 as the mid-point.

As for example, Normalized Mean = (84.24, i.e., Mean of the item responses in total scale /24, i.e., Total number of items in the Scale) = 3.51.

The range of Normalized means score of **"Attitude towards Physical Education and Sport Scale"** may be interpreted as –

1.00 to 1.99	**:**	**Highly Negative Attitude**
2.00 to 2.99	**:**	**Negative Attitude**
3.00 to 3.99	**:**	**Positive Attitude**
4.00 to 5.00	**:**	**Highly Positive Attitude**

4.3.2 Sports Multidimensional Perfectionism Scale (John, Dunn, *et al.*, 2005)

The 40-item ***Multidimensional Students Life Satisfaction Scale (MSLSS)*** is The instrument is designed to measure how athletes view certain aspects of their competitive experiences in sport. Using a 5-point Likert-type scale, athletes indicate how much they agree or disagree with each of the 30 items (1 being strongly disagreed and 5 being highly agreed). Higher scores indicate higher levels of perfectionism in each subscale. Item scores are averaged within each subscale. Criteria for simple structure, all items in the four-factor solution discovered by Dunn et al. had appropriate levels of internal consistency, with coefficient alphas ranging from 0.76 to 0.89 for each subscale.

The Sport-MPS contains 30 items and four subscales. The subscales are labelled Personal Standards (PS: 7 items, e.g. 'I have extremely high goals for myself in my sport'), Concern Over Mistakes (COM: 8 items, e.g. 'If I play well but only make one obvious mistake in the entire game, I still feel disappointed with my performance'), Perceived Parental Pressure (PPP: 9 items, e.g. 'In competition, I never feel like I can quite meet my parents' expectations'), and Perceived Coach Pressure (PCP: 6 items, e.g. 'Only outstanding performance in competition is good enough for my coach').

Table 4.4.2: Subscale-wise Item Distribution

Sl. No.	Subscales	Items
1.	Personal Standards	7
2.	Concern Over Mistakes	8
3.	Perceived Parental Pressure	9
4.	Perceived Coach Pressure	6
Total		30

The subscales have different numbers of items. Normalization brings each subscale's mean score into comparison. The following is the normalization process:

Normalized mean = Mean of the item responses in a subscale /Total number of items in that subscale.

Then, the normalized mean falls within the range extending from 1 to 5 with 3 as the mid-point. ***The score at the higher end of the scale should be considered as high perfectionism.***

[For example, in **Personal Standards**: Normalized Mean = 3.28 (22.96, i.e., Mean of the item responses in the subscale Personal Standards /7, i.e., Total number of items in the subscale Personal Standards)]

The range of Normalized means score of each subscale of the **"Sports Multidimensional Perfectionism Scale"** may be interpreted as –

1.00 to 1.99	**:**	**Very Low Sports Perfectionism**
2.00 to 2.99	**:**	**Low Sports Perfectionism**
3.00 to 3.99	**:**	**High Sports Perfectionism**
4.00 to 5.00	**:**	**Very high Sports Perfectionism**

4.3.3 Big Five Inventory (BFI), (Goldberg, 1993)

The Big Five Factors (dimensions) of personality are measured by the 44-item BFI, **(Goldberg, 1993).** Subsequently, every element is further separated into aspects of personality. **Openness, conscientiousness, extraversion, agreeableness, and neuroticism** are the Big Five Factors (dimensions) of personality.

This is a personality examination meant to help you understand the structure of an individual's personality as well as the reasons behind their actions. There are 44 assertions total, and a 5-point Likert scale is associated with each statement. A person is required to rate their level of agreement with the statement on a scale of 1 to 5, with 1 denoting disagree, 2 slightly disagree, 3 neutral, 4 slightly agree, and 5 agree.

Table-4.4.3.1: Factor-wise Item Distribution

Sl. No.	Facets	Items
1.	Extraversion	8
2.	Agreeableness	9
3.	Conscientiousness	9
4.	Neuroticism	8
5.	Openness	10
Total		**44**

The measurements are composed of an uneven quantity of elements. Normalization creates comparability between each factor's mean score. The steps involved in normalizing are as follows:

Normalized mean = Mean of the item responses in a factor/Total number of items in that factor.

Then, the normalized mean falls within the range extending from 1 to 5 with 3 as the mid-point.

[For example, in the case of Extraversion: Normalized Mean = 3.19 (25.52, i.e., Mean of the item responses in the factor Extraversion /8, i.e., Total number of items in the factor Extraversion)]

The range of Normalized means score of each factor of the **"Big Five Inventory (BFI),"** of personality may be interpreted as –

1.00 to 1.99	**:**	**Very Low**
2.00 to 2.99	**:**	**Low**
3.00 to 3.99	**:**	**High**
4.00 to 5.00	**:**	**Very high**

4.4 Procedure for Data Collection

The heads of the institutes were contracted for his/her permission to collect the data. The relevant data on different constructs were collected by administering the above-mentioned tools on the subjects under study following the directions provided in the manual of the tool.

4.5 Statistical Techniques

The results of the study were extracted with the help of SPSS20.0 software.

5. Results of Multiple Regression Analysis

The results of multiple regression analysis considering the *Attitude towards Physical Education* score of the school-going adolescents as the dependent variable and different subscales of *Sports Perfectionism* and *Personality Factors* score as independent variables are presented herewith.

Three analyses were done considering – (a) both male and female school-going adolescents as a whole, (b) male school-going adolescents only, and (c) female school-going adolescents only.

5.1 Attitude towards Physical Education Score of the Male and Female School-Going Adolescents as a Whole as Dependent Variable

The results of multiple regression analysis considering male and female school-going adolescents as a whole are presented in table-5.1(a), table-5.1(b), table-5.1(c), and table-5.1(d).

Table-5.1(a): Variables Entered in Multiple Regression Analysis Considering Attitude towards Physical Education Scale Scores of school-going adolescents as Dependent Variable

Model	Variables Entered	Method
1	Agreeableness	Stepwise (Criteria: Probability-of-F-to-enter <= .050)
2	Openness	Stepwise (Criteria: Probability-of-F-to-enter <= .050)
3	Personal Standard	Stepwise (Criteria: Probability-of-F-to-enter <= .050)
4	Neuroticism	Stepwise (Criteria: Probability-of-F-to-enter <= .050)
5	Perceived Parental Pressure	Stepwise (Criteria: Probability-of-F-to-enter <= .050)

Table- 5.3.1(a) shows variables entered in multiple regression analysis.
Dependent variable was **Attitude towards Physical Education** of school-going adolescents.
Independent variables were Different subscales of **Sports Perfectionism** (viz. Personal Standards, and Perceived Parental Pressure), and different factors of **Personality Factors** (viz. Agreeableness, Openness, and Neuroticism) of the school-going adolescents.
Method of analysis – **Here stepwise method of analysis was considered.**

Table-5.1(b): Model Summary in Multiple Regression Analysis taking Attitude towards Physical Education Scale Scores of School-going Adolescents as Dependent Variable

Model	R	R²	Adjusted R²	Std. Error of the Estimate	Change Statistics				
					R² Change	F Change	df₁	df₂	Sig. F Change
1	0.35ᵃ	0.12	0.12	0.36	0.12	96.49	1.00	704.00	0.00
2	0.42ᵇ	0.17	0.17	0.35	0.05	45.95	1.00	703.00	0.00
3	0.44ᶜ	0.19	0.19	0.34	0.02	15.54	1.00	702.00	0.00
4	0.45ᵈ	0.20	0.20	0.34	0.01	10.40	1.00	701.00	0.00
5	0.46ᵉ	0.21	0.20	0.34	0.01	5.91	1.00	700.00	0.02
a. Predictors: (Constant), Agreeableness									
b. Predictors: (Constant), Agreeableness, Openness									
c. Predictors: (Constant), Agreeableness, Openness, Personal Standard									
d. Predictors: (Constant), Agreeableness, Openness, Personal Standard, Neuroticism									
e. Predictors: (Constant), Agreeableness, Openness, Personal Standard, Neuroticism, Perceived Parental Pressure									

Table 5.3.1 (b) shows the model summary in multiple regression analysis. From this table, it is clear that the F changes were highly significant in all of the five models.

Table-5.1(c): ANOVA in Multiple Regression Analysis Considering Attitude towards Physical Education Scale Scores of school-going adolescents as Dependent Variable

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.34	1.00	12.34	96.43	0.00ᵇ
	Residual	90.04	704.00	0.13		
	Total	102.38	705.00			
2	Regression	17.87	2.00	8.93	74.30	0.00ᶜ
	Residual	84.52	703.00	0.12		
	Total	102.38	705.00			
3	Regression	19.70	3.00	6.57	55.74	0.00ᵈ
	Residual	82.69	702.00	0.12		
	Total	102.38	705.00			
4	Regression	20.90	4.00	5.23	44.96	0.00ᵉ
	Residual	81.48	701.00	0.12		
	Total	102.38	705.00			
5	Regression	21.59	5.00	4.32	37.41	0.00ᶠ
	Residual	80.79	700.00	0.12		
	Total	102.38	705.00			
a. Dependent Variable: Attitude towards Physical Education						
b. Predictors: (Constant), Agreeableness						
c. Predictors: (Constant), Agreeableness, Openness						
d. Predictors: (Constant), Agreeableness, Openness, Personal Standard						
e. Predictors: (Constant), Agreeableness, Openness, Personal Standard, Neuroticism						
f. Predictors: (Constant), Agreeableness, Openness, Personal Standard, Neuroticism, Perceived Parental Pressure						

Table-5.3.1(c) shows ANOVA in multiple regression analysis. From the result it is clear that the F was highly significant in all five models.

Table-5.1(d): Coefficients in Multiple Regression Analysis Considering Attitude towards Physical Education Scale Scores of School-going Adolescents as Dependent Variable

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	β	t	Sig.
1	(Constant)	2.57	0.10		24.86	0.00
	Agreeableness	0.30	0.03	0.35	9.82	0.00
2	(Constant)	2.11	0.12		17.53	0.00
	Agreeableness	0.25	0.03	0.29	8.20	0.00
	Openness	0.20	0.03	0.24	6.78	0.00
3	(Constant)	1.99	0.12		16.19	0.00
	Agreeableness	0.23	0.03	0.27	7.55	0.00
	Openness	0.18	0.03	0.22	6.07	0.00
	Personal Standards	0.08	0.02	0.14	3.94	0.00
4	(Constant)	2.26	0.15		15.31	0.00
	Agreeableness	0.21	0.03	0.25	6.97	0.00
	Openness	0.18	0.03	0.22	6.11	0.00
	Personal Standards	0.08	0.02	0.14	4.12	0.00
	Neuroticism	-0.08	0.02	-0.11	-3.23	0.00
5	(Constant)	2.33	0.15		15.54	0.00
	Agreeableness	0.21	0.03	0.25	7.03	0.00
	Openness	0.18	0.03	0.21	6.05	0.00
	Personal Standards	0.10	0.02	0.18	4.78	0.00
	Neuroticism	-0.07	0.03	-0.10	-2.86	0.00
	Perceived Parental Pressure	-0.05	0.02	-0.09	-2.43	0.02

Table-5.1(d) shows the coefficient of multiple regression analysis. For the model-5 the linear multiple regression equation was as follows:

$$\text{Attitude towards Physical Education} = \begin{vmatrix} 2.33 \\ 0.21 \\ 0.18 \\ 0.10 \\ -0.07 \\ -0.05 \end{vmatrix} \times \begin{matrix} 1 & \text{Agreeableness} & \text{Openness} & \text{Personal Standards} & \text{Neuroticism} & \text{Perceived Parental Pressure} \end{matrix}$$

Attitude towards Physical Education = 2.33 + 0.21 × Agreeableness + 0.18 × Openness + 0.10 × Personal Standards - 0.07 × Neuroticism – 0.05 × Perceived Parental Pressure

5.2 Attitude towards Physical Education Score of the Male School-Going Adolescents as Dependent Variable

The results of multiple regression analysis of male school-going adolescents are presented in table-5.2(a), table-5.2(b), table-5.2(c), and table-5.2(d).

Table-5.2(a): Variables Entered in Multiple Regression Analysis considering attitude towards physical education Scale Scores of Male Teachers as Dependent Variable

Model	Variables Entered	Method
1	Agreeableness	Stepwise (Criteria: Probability-of-F-to-enter <= .050
2	Concern Over Mistake	Stepwise (Criteria: Probability-of-F-to-enter <= .050
3	Extraversion	Stepwise (Criteria: Probability-of-F-to-enter <= .050
4	Personal Standard	Stepwise (Criteria: Probability-of-F-to-enter <= .050

Table- 5.3.2(a) shows variables entered in multiple regression analysis.
Dependent variable was **Attitude towards Physical Education** of the school-going adolescents.

Independent variables were Different subscales of **Sports Perfectionism** (viz. Personal Standards, and Concern Over Mistakes), and different factors of **Personality Factors** (viz. Agreeableness and Extraversion) of the school-going adolescents.
Method of analysis – **Here stepwise method of analysis was considered.**

Table-5.2(b): Model Summary in Multiple Regression Analysis attitude towards physical education Scale Scores of Male school-going adolescents as Dependent Variable

Model	R	R²	Adjusted R²	Std. Error of the Estimate	Change Statistics				
					R² Change	F Change	df₁	df₂	Sig. F Change
1	0.26[a]	0.07	0.06	0.52	0.07	21.27	1.00	308.00	0.00
2	0.32[b]	0.10	0.09	0.51	0.03	11.56	1.00	307.00	0.00
3	0.36[c]	0.13	0.12	0.50	0.03	9.37	1.00	306.00	0.00
4	0.38[d]	0.14	0.13	0.50	0.01	4.90	1.00	305.00	0.03

a. Predictors: (Constant), Agreeableness
b. Predictors: (Constant), Agreeableness, Concern Over Mistake
c. Predictors: (Constant), Agreeableness, Concern Over Mistake, Extraversion
d. Predictors: (Constant), Agreeableness, Concern Over Mistake, Extraversion, Personal Standards

Table-5.3.2(b) shows the model summery in multiple regression analysis. From this table it is clear that the F changes were highly significant in all of the four models.

Table-5.2(c): ANOVA in Multiple Regression Analysis Considering Job Satisfaction Scale Scores of Male Teachers as Dependent Variable

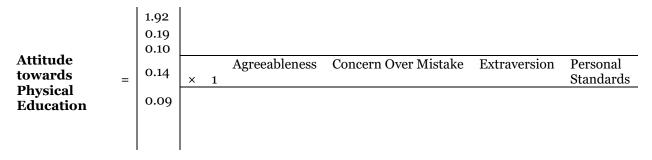| Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	5.80	1.00	5.80	21.73	0.00[b]
	Residual	82.27	308.00	0.27		
	Total	88.08	309.00			
2	Regression	8.79	2.00	4.40	17.02	0.00[c]
	Residual	79.29	307.00	0.26		
	Total	88.08	309.00			
3	Regression	11.15	3.00	3.72	14.78	0.00[d]
	Residual	76.93	306.00	0.25		
	Total	88.08	309.00			
4	Regression	12.36	4.00	3.09	12.45	0.00[e]
	Residual	75.71	305.00	0.25		
	Total	88.08	309.00			
a. Dependent Variable: Attitude Towards Physical Education						
b. Predictors: (Constant), Agreeableness						
c. Predictors: (Constant), Agreeableness, Concern Over Mistake						
d. Predictors: (Constant), Agreeableness, Concern Over Mistake, Extraversion						
e. Predictors: (Constant), Agreeableness, Concern Over Mistake, Extraversion, Personal Standards						

Table-5.3.2(c) shows ANOVA in multiple regression analysis. From the result it is clear that the F was highly significant in all four models.

Table-5.2(d): Coefficients in Multiple Regression Analysis Considering Job Satisfaction Scale Scores of Male Teachers as Dependent Variable

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	β		
1	(Constant)	2.75	0.18		15.54	0.00
	Agreeableness	0.24	0.05	0.26	4.66	0.00
2	(Constant)	2.42	0.20		12.06	0.00
	Agreeableness,	0.23	0.05	0.24	4.35	0.00
	Concern Over Mistake	0.13	0.04	0.19	3.40	0.00
3	(Constant)	2.08	0.23		9.18	0.00
	Agreeableness,	0.20	0.05	0.21	3.85	0.00
	Concern Over Mistake	0.12	0.04	0.17	3.13	0.00
	Extraversion	0.15	0.05	0.17	3.06	0.00
4	(Constant)	1.92	0.24		8.08	0.00
	Agreeableness,	0.19	0.05	0.20	3.64	0.00

Concern Over Mistake	0.10	0.04	0.14	2.51	0.01
Extraversion	0.14	0.05	0.15	2.77	0.01
Personal Standards	0.09	0.04	0.12	2.21	0.03

Table-5.2(d) shows the coefficient of multiple regression analysis. For the model-4 the linear multiple regression equation was as follows:

$$
\text{Attitude towards Physical Education} = \begin{vmatrix} 1.92 \\ 0.19 \\ 0.10 \\ 0.14 \\ 0.09 \end{vmatrix} \times \begin{array}{|cccc} 1 & \text{Agreeableness} & \text{Concern Over Mistake} & \text{Extraversion} & \text{Personal Standards} \end{array}
$$

Attitude towards Physical Education = 1.92 + 0.19 × Agreeableness + 0.10 × Concern Over Mistake + 0.14 × Extraversion + 0.09 × Personal Standards

5.3 Attitude towards Physical Education Score of the Female School-Going Adolescents as Dependent Variable

The results of multiple regression analysis of female school-going adolescents are presented in table-5.3(a), table-5.3(b), table-5.3(c), and table-5.3(d).

Table-5.3(a): Variables Entered in Multiple Regression Analysis Considering Job Satisfaction Scale Scores of Female Teachers as Dependent Variable

Model	Variables Entered	Method
1	Agreeableness	Stepwise (Criteria: Probability-of-F-to-enter <= .050)
2	Openness	Stepwise (Criteria: Probability-of-F-to-enter <= .050)
3	Neuroticism	Stepwise (Criteria: Probability-of-F-to-enter <= .050)
4	Personal Standard	Stepwise (Criteria: Probability-of-F-to-enter <= .050)
5	Perceived Parental Pressure	Stepwise (Criteria: Probability-of-F-to-enter <= .050)

Table- 5.3.3(a) shows variables entered in multiple regression analysis.
Dependent variable was **Attitude towards Physical Education** of the school-going adolescents.
Independent variables were Different subscales of **Sports Perfectionism** (viz. Personal Standards and Perceived Parental Pressure), and different factors of **Personality Factors** (viz. Agreeableness, Openness and Neuroticism) of the school-going adolescents.
***Method of analysis* – Here stepwise method of analysis was considered.**

Table-5.3(b): Model Summary in Multiple Regression Analysis Attitude towards Physical Education Scale Scores of Female school-going adolescents as Dependent Variable

Model	R	R²	Adjusted R²	Std. Error of the Estimate	Change Statistics				
					R² Change	F Change	df₁	df₂	Sig. F Change
1	0.37[a]	0.13	0.13	0.35	0.13	60.96	1.00	394.00	0.00
2	0.40[b]	0.16	0.16	0.34	0.03	12.81	1.00	393.00	0.00
3	0.43[c]	0.18	0.18	0.34	0.02	10.96	1.00	392.00	0.00
4	0.44[d]	0.19	0.19	0.34	0.01	4.49	1.00	391.00	0.04
5	0.46[e]	0.21	0.20	0.34	0.02	7.46	1.00	390.00	0.01
a. Predictors: (Constant), Agreeableness									
b. Predictors: (Constant), Agreeableness, Openness									
c. Predictors: (Constant), Agreeableness, Openness, Neuroticism									
d. Predictors: (Constant), Agreeableness, Openness, Neuroticism, Personal Standard,									
e. Predictors: (Constant), Agreeableness, Openness, Neuroticism, Personal Standard, Perceived Parental Pressure									

Table-5.3.3(b) shows the model summary in multiple regression analysis. From this table, it is clear that the F changes were highly significant in all of the five models.

Table-5.3(c): ANOVA in Multiple Regression Analysis Considering Job Satisfaction Scale Scores of Female Teachers as Dependent Variable
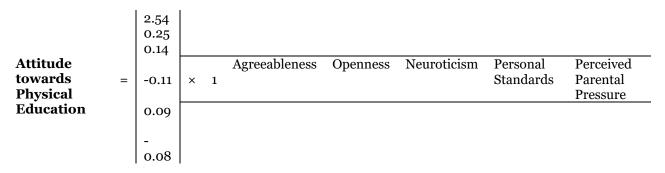
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.42	1.00	7.42	60.96	0.00[b]
	Residual	46.96	394.00	0.12		
	Total	55.37	395.00			
2	Regression	8.93	2.00	4.47	97.80	0.00[c]
	Residual	46.44	393.00	0.12		
	Total	55.37	395.00			
3	Regression	10.20	3.00	3.40	29.49	0.00[d]
	Residual	45.18	392.00	0.12		
	Total	55.37	395.00			
4	Regression	10.71	4.00	2.68	23.44	0.00[e]
	Residual	44.67	391.00	0.11		
	Total	55.37	395.00			
5	Regression	11.55	5.00	2.31	20.55	0.00[f]
	Residual	43.83	390.00	0.11		
	Total	55.37	395.00			
a. Dependent Variable: Attitude towards Physical Education						
b. Predictors: (Constant), Agreeableness						
c. Predictors: (Constant), Agreeableness, Openness						
d. Predictors: (Constant), Agreeableness, Openness, Neuroticism						
e. Predictors: (Constant), Agreeableness, Openness, Neuroticism, Personal Standard,						
f. Predictors: (Constant), Agreeableness, Openness, Neuroticism, Personal Standard, Perceived Parental Pressure						

Table 5.3.3 (c) shows ANOVA in multiple regression analysis. From the result it is clear that the F was highly significant in all five models.

Table-5.3(d): Coefficients in Multiple Regression Analysis Considering Job Satisfaction Scale Scores of Female Teachers as Dependent Variable

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	β	t	Sig.
1	(Constant)	2.52	0.14		18.47	0.00
	Agreeableness	0.31	0.04	0.37	7.81	0.00
2	(Constant)	2.19	0.16		13.29	0.00
	Agreeableness	0.28	0.04	0.33	6.86	0.00
	Openness	0.15	0.04	0.17	3.58	0.00
3	(Constant)	2.51	0.19		13.23	0.00
	Agreeableness	0.26	0.04	0.31	6.62	0.00
	Openness	0.15	0.04	0.18	3.76	0.00
	Neuroticism	-0.11	0.03	-0.15	-3.31	0.00
4	(Constant)	2.46	0.19		12.94	0.00
	Agreeableness	0.25	0.04	0.29	6.13	0.00
	Openness	0.14	0.04	0.16	3.32	0.00
	Neuroticism	-0.11	0.03	-0.16	-3.47	0.00
	Personal Standards	0.05	0.02	0.10	2.12	0.04
5	(Constant)	2.54	0.19		13.31	0.00
	Agreeableness	0.25	0.04	0.30	6.32	0.00
	Openness	0.14	0.04	0.16	3.35	0.00
	Neuroticism	-0.11	0.03	-0.15	-3.25	0.00
	Personal Standards	0.09	0.03	0.17	3.19	0.00
	Perceived Parental Pressure	-0.08	0.03	-0.14	-2.73	0.01

Table 5.3 (d) shows the coefficient of multiple regression analysis. For the model-5 the linear multiple regression equation was as follows:

$$
\textbf{Attitude towards Physical Education} =
\begin{vmatrix}
2.54 \\
0.25 \\
0.14 \\
-0.11 \\
0.09 \\
-0.08
\end{vmatrix}
\times
\begin{vmatrix}
1 & \text{Agreeableness} & \text{Openness} & \text{Neuroticism} & \text{Personal Standards} & \text{Perceived Parental Pressure}
\end{vmatrix}
$$

Attitude towards Physical Education = 2.54 + 0.25 × Agreeableness + 0.14 × Openness - 0.11 × Neuroticism + 0.09 × Personal Standards -0.08 × Perceived Parental Pressure

6. Discussion on the Result of Multiple Regression Analysis

The results of multiple regression analysis considering the ***Attitude towards Physical Education*** score of the school-going adolescents as the dependent variable and different subscales of ***Sports Perfectionism*** and ***Personality Factors*** score as independent variables are presented in the previous section.
Three analyses were done considering – (a) both male and female school-going adolescents as a whole, (b) male school-going adolescents only, and (c) female school-going adolescents only. The discussions on the three cases are placed herewith.

6.1 Considering Male and Female School-Going Adolescents as a Whole
Discussions on the results of multiple regression analysis considering both male and female school-going adolescents as a whole are placed herewith.
The results of Table 5.1 (d) showed the coefficient of the multiple regression equation. The linear multiple regression equation was as follows:

Attitude towards Physical Education = 2.33 + 0.21 × Agreeableness + 0.18 × Openness + 0.10 × Personal Standards - 0.07 × Neuroticism – 0.05 × Perceived Parental Pressure
It was observed that out of a total of 9 independent variables (i.e., subscales of Sports Perfectionism, and factors of Personality Factors), only 5 (Two subscales of Sports Perfectionism, i.e., Personal Standard and Perceived Parental Pressure; Three facets of Personality Factors, i.e., Agreeableness, Neuroticism and Openness) put their highly (statistically) significant effect on Attitude Towards Physical Education of the school-going adolescents (considering both genders female and male as a whole), in West Bengal.
Only one subscale of Sports Perfectionism such as Personal Standard and two factors of personality factors such as Agreeableness and Openness had a positive effect on Attitude Towards Physical Education of school-going adolescents (considering male and female teachers as a whole). Another subscale Sports Perfectionism such as Perceived Parental Pressure; and one factor of personality factors such as Neuroticism put a negative impact on the Attitude Towards Physical Education of school-going adolescents (considering male and female teachers as a whole) of secondary and higher secondary schools in West Bengal.
From this multiple regression equation, it is clear that Personal Standards, Agreeableness, and Openness help the attitude to be positive towards physical education of school-going adolescents. Here, the hypothesis **H₁** was accepted.

6. 2 Considering Male School-Going Adolescents only
Discussions on the results of multiple regression analysis considering the male school-going adolescents are placed herewith.
The results of Table 5.2 (d) showed the coefficient of the multiple regression equation. The linear multiple regression equation was as follows:
Attitude towards Physical Education = 1.92 + 0.19 × Agreeableness + 0.10 × Concern Over Mistake + 0.14 × Extraversion + 0.09 × Personal Standards
It was observed that out of a total 9 independent variables (i.e., subscales of Sports Perfectionism, and factors of Personality Factors), only 4 (Two subscales of Sports Perfectionism, i.e., Personal Standard and Concern over Mistake; Two factors of Personality Factors, i.e., Agreeableness, and Extraversion) put their highly (statistically) significant effect on Attitude Towards Physical Education of the school-going male adolescents in West Bengal.
Only two subscales of Sports Perfectionism such as Personal Standard, Concern Over Mistake, and two factors of personality factors such as Extraversion, Agreeableness put their positive effect on the Attitude toward

physical Education of school-going male adolescents. On the other hand, no subscale of Sports Perfectionism and no factors of personality factors put their negative impact on the Attitude Towards Physical Education of school-going male adolescents of secondary and higher secondary schools in West Bengal.

From this multiple regression equation, it is clear that Personal Standards, Concern Over Mistakes, Extraversion, and Agreeableness help the attitude to be positive towards physical education of school-going male adolescents. Here, the hypothesis **H₂** was accepted.

6. 3 Considering Female School-Going Adolescents only

Discussions on the results of multiple regression analysis considering the female school-going adolescents are placed herewith.

The results of the table-5.3(d) showed the coefficient of the multiple regression equation. The linear multiple regression equation was as follows:

Attitude towards Physical Education = 2.54 + 0.25 × Agreeableness + 0.14 × Openness - 0.11 × Neuroticism + 0.09 × Personal Standards -0.08 × Perceived Parental Pressure

It was observed that out of total 9 independent variables (i.e., subscales of Sports Perfectionism, and factors of Personality Factors) only 5 (Two subscales of Sports Perfectionism, i.e., Personal Standard and Perceived Parental Pressure; Three factors of Personality Factors, i.e., Agreeableness, Neuroticism and Openness) put their highly (statistically) significant effect on Attitude Towards Physical Education of the school-going female adolescents in West Bengal.

Only one subscale of Sports Perfectionism such as Personal Standard, and two factors of personality factors such as, Agreeableness, and Openness put their positive effect on Attitude Towards Physical Education of school-going female adolescents. On the other hand, the other subscale Sports Perfectionism such as Perceived Parental Pressure; and one factor of personality factors such as, and Neuroticism put their negative impact on Attitude Towards Physical Education of school-going female adolescents of secondary and higher secondary schools in West Bengal.

From this multiple regression equation, it is clear that Personal Standards, Agreeableness, and Openness helps the attitude to be positive towards physical education of the school-going female adolescents. Here, the hypothesis **H₃** was accepted.

Adolescents with high agreeableness are typically more cooperative, friendly, and compassionate. These traits foster them to build up a positive relationship with peers and teachers(coaches), which can make physical activities a more enjoyable and collaborative experience. This positive social environment can enhance their overall attitude towards physical education.

High personal standards encourage adolescents to set and pursue individual goals in physical activity, increasing their motivation to participate and improve. This personal drive can lead to greater engagement and a more positive attitude towards physical education.

Adolescents may experience a strong desire to live up to their parents' expectations when they perceive significant amounts of parental pressure. This pressure may cause them to become more tense and nervous, which will decrease their enthusiasm and enjoyment of physical education. Physical education may become a cause of anxiety rather than delight due to a negative emotional reaction brought on by the fear of disappointing parents. Teens who experience pressure may feel powerless to regulate their physical activity involvement, which can breed resentment and a bad attitude toward the activity.

All these research findings support the above results. **Li et al., (2023)** established a positive correlation between perfectionism and competitive state anxiety. **Harnois, Langlois, and Miquelon (2022)** highlighted that perfectionism from a personal stand accelerates psychological functioning leading to physical activities. **Hamidi and Besharat (2021)** revealed that negative reaction to imperfection helps to bring self-confidence among adolescents in their physical activities. **Ozcan (2021)** said that stable personal standards played a partial role in maintaining the mental well-being of a physically active person. **Aghdasi (2014)** revealed that satisfied perceived parental and coach pressure influenced to achievement of goals and built a relationship between multi-dimensional perfectionism and athletes' burnout.

Kekalainen et al., (2021) said that the openness factor was related to leisure time physical activity and participants who scored higher in extraversion and openness were more likely to practice physical activities during the COVID-19 pandemic. **Wilson and Rhodes (2021)** establish that individuals having high agreeableness and openness like to engage themselves more in both vigorous and moderate physical activities, which can reinforce the multifaceted nature of their active lifestyle.

7. Conclusion

The study concludes that sports perfectionism and personality factors significantly influence the attitudes of school-going adolescents toward physical education. Perfectionistic striving, characterized by a positive drive for excellence, fosters motivation, goal-oriented behaviour, and a constructive outlook toward physical education. On the other hand, perfectionistic concerns, driven by fear of failure and criticism, often hinder participation, leading to anxiety and negative perceptions of physical education activities.

Personality traits from the Big Five model further shape these attitudes. Extroverted and conscientious students display enthusiasm, discipline, and social engagement, contributing to positive experiences in physical education. Conversely, neuroticism is associated with stress and fear of judgment, resulting in disengagement. Openness to experience and agreeableness also enhance collaboration and willingness to try diverse activities.

To optimize adolescents' engagement in physical education, it is crucial to address perfectionistic concerns, encourage personal growth, and tailor activities to different personality types. By promoting a balance between striving for excellence and reducing performance anxiety, physical education programs can foster positive attitudes, enhance physical and mental well-being, and instil a lifelong appreciation for active lifestyles. This study highlights the need for inclusive, psychologically informed approaches to physical education to support holistic adolescent development.

References

1. **Aghdasi, M.T. (2014).** The Relationship between Perfectionism and Burnout in Junior - Elite Athletes. *International Journal of Science Culture and Sport, 2*(1), 27-38.
2. **Aicinena, S. (1991).** The teacher & student attitudes toward physical education. *The Physical Educator, Late Winter*, 28-31.
3. **Ali, S. S., Adhikari, S., Nandy, S. (2012).** The Relation between Anxiety and Sports Perfectionism of Kabaddi Players. *International Journal of Scientific and Research Publications, 2*(10), 1-4.
4. **Blatt, S. J. and Shichman, S. (1983).** Two primary configurations of psychopathology. *Psychoanalysis and Contemporary Thought*, 6,187–254
5. **Carlson, T. B. (1994).** Why students hate, tolerate, or love gym: A study of attitude formation and associated behaviours in physical education (Doctoral dissertation, University of Massachusetts, 1994). Dissertation Abstracts International, 55-03A, 0502.
6. **Chakraborty, B. and Adhikari, S. (2014).** Management of Sports Multidimensional Perfectionism through Teachers' Training Programme in Physical Education. International *Journal of Innovative Research in Science, Engineering and Technology, 3*(1), 8547-8554.
7. **Corbin, C. B. (2001).** The "untracking" of sedentary living: A call for action. *Paediatric Exercise Science, 13*(1), 347-356.
8. **Cothran, D. J., Ennis, C. D. (1998).** Curricula of mutual worth: Comparisons of students' and teachers' curricular goals. *Journal of Teaching in Physical Education, 17*, 307-326.
9. **Ennis, C.D. (1996).** Students' experiences in sport-based physical education: (Mare than) apologies are necessary. *Quest, 48*,453- 456.
10. **Figley, G. E. (1985).** Determinants of attitudes toward physical education. *Journal of Teaching in Physical Education, 4* (4), 229-240.
11. **Flett, G. L., Hewitt, P. L., Blankstein, K. R. and Gray, L. (1998).** Psychological distress and the frequency of perfectionistic thinking. *Journal of Personality and Social Psychology, 75*(5),1363–1381.
12. **Flett, G. L., Hewitt, P. L., Blankstein, K. R. and Koledin, S. (1991).** Dimensions of perfectionism and irrational thinking. *Journal of Rational-Emotive and Cognitive Behavior Therapy*, 9,185–201.
13. **Frost, R. O. and Marten, P. A. (1990)**. Perfectionism and evaluative threat. *Cognitive Therapy and Research*, 14(6),559–572.
14. **Graham, G. (1995).** Physical education through students' eyes and in students' voices: Introduction. *Journal of Teaching in Physical Education, 14* (4), 364-371.
15. **Hamidi, S., Besharat, M. A. (2010).** Perfectionism and Competitive anxiety in athletes. *Procedia Social and Behavioural Sciences, 5,* 813-817.
16. **Harnois, S., Langlois, F., Miquelon, P. (2022).** Perfectionism and Psychological Functioning in Sport Activity: Mediating Role of Basic Psychological Needs. *Research & Investigations in Sports Medicine, 9*(1), 797-808.
17. **Kant, S. (2014).** Physical Education: A Healthy Way to Develop Personality. *International Journal of Science and Research, 3*(1), 140-141.
18. **Kekalainen, T., Sipila, S., Saajanaho, M., Kokko, K. (2021).** The role of personality traits in leisure time physical activity during COVID-19 pandemic. *Personality and Individual Differences, 182* (2021) 111080.
19. **Lee, A. M. (1997).** Contribution of research on student thinking in physical education. *Journal of Teaching in Physical Education, 16*, 262-277.

20. **Li, L., Jing, L., Liu, Y., Tang, Y., Wang, H., Yang, J. (2023).** Association of Mindfulness with Perfectionism. Exercise Self-efficacy, and competitive State Anxiety in Injured Athletes Returning to sports. *Healthcare, 44*, 1-12.
21. **Luke, M.D. and Cope, L. D. (1994).** Student attitudes toward teacher behaviour and program content in school physical education. *The Physical Educator, Spring,* 57-66.
22. **Ozcan, V. (2021).** Perfectionism and well-being among student-athletes: The mediating role of athletic coping. *African Educational Research Journal, 9*(2), 489-497.
23. **Portman, P.A. (1995).** Who is having fun in physical education classes? Experiences of sixth-grade students in elementary & middle schools. *Journal of Teaching in Physical Education, 14* (4), 445-453.
24. **Silverman, S. (1993).** Student characteristics, practice, and achievement in physical education. *Journal of Educational Research, 87*, 54-61.
25. **Stoeber, J. (2011).** The Dual Nature of Perfectionism in Sports: Relationships with Emotions, Motivation, and Performance. *Performance International Review of sport and Exercise Psychology, 4*(2), 128-145.
26. **Subramaniam, P. R., Silverman, S. (2000).** Validation of scores from and instrument assessing student attitude toward physical education. *Measurement in Physical Education and Exercise Science, 4*, 29-40.
27. **Wilson, K.E., Rhodes, R. E. (2021).** Personality and physical activity. *Essentials of Exercise and Sports Psychology: An Open Access Textbook,* 114-149.