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## PERSONALITY'S IMPACT ON PROCRASTINATION BEHAVIORS IN STUDENTS IN EARLY ADOLESCENCE

### ABSTRACT

The aim of this study was to determine the connections between personality traits and the tendency to procrastination behaviors in students during the period of early adolescence. 530 students participated in this study (at seventh and eighth grade of primary school, attending four primary schools), aged 13 to 15 ( $M= 13.5$ ;  $SD=.48$ ; including 53,5% girls and 46,5% boys). It was presumed that in the discussed stage of development, personality traits form intensively patterns of behavior that determine future choices when it comes to education and professional career solidify. The methods used in the study were: Ten Item Personality Inventory TIPI (TIPI-P is the Polish version of the tool; Łaguna, Bak, Purc, Mielniczuk, Oleś, 2014 and the Pure Procrastination Scale (PPS – Steel, 2010; in the Polish adaptation by Stępień and Ciecuch, 2013, with amendments by Stępień and Topolewska, 2014).

In studies carried out to date, connections between personality traits, such as conscientiousness and neuroticism with procrastination, were stressed. Nevertheless to date, there is a lack of systematic studies on connections between personality traits and procrastination in younger adolescents. This study allows to fill in this gap, and, in practical dimension, to provide preceptors – teachers and parents with conclusions for pedagogical work with young people that would be aimed at promoting the skill of accurate planning of activities in time, setting important goals and adequate ways

of reaching them. The results showed that boys have significantly higher emotional stability than girls. What is more, in the group of girls, conscientiousness and emotional stability are significant predictors of procrastination, whereas in the case of boys – agreeableness and conscientiousness.

**KEYWORDS:** *procrastination, personality, Big Five, early adolescence, school*

## INTRODUCTION

The period of early adolescence is the time between 11/12 – 14/15 years of age. It is a key moment in the development of a young person as it closes the experiences of childhood, forms the basis for building mature personality and forms plans and life goals. A teenager at this stage takes up challenges connected with education, performing new social roles and restructures social value orientation (Gaś, 2013, p. 9). This stage is also sometimes characterized as the time of turbulent activeness, chaotic search and noble, often unreal desires. Difficulties in coping with physical changes of one's body and social expectations are the source of anxiety (Borecka-Biernat, 2011, p. 11). Emotional ambivalence characteristic of adolescence has the following attributes: alternateness of conflicting thoughts, plans and desire for instant gratification of undertaken actions (Markiewicz, Kaczmarek, Kostka-Szymańska, 2010, p. 66-67). Difficulties that appear in the period of adolescence often stem from lack of balance between tasks and teenager's abilities. The schemata of cognitive functioning possessed before turn out to be inadequate and unadjusted to the situations that come up. Young people show lack of stability in judgment, extensive professional confidence, sense of power and strength. They often struggle with breakdown and lack of belief in one's own abilities (Mastalski, 2007, p. 56).

The period of transition from the safe space of childhood to adolescence is initially a time of being lost and uncertain. Changes of one's body, way of thinking about oneself and the world result in the sense of confusion regarding what is expected of a growing up young person by their surroundings and what they expect of themselves (Piotrowski, Wojciechowska, Ziółkowska, 2014, p. 14-15). Realization of new tasks might constitute a source of sense of

uncertainty and anxiety connected with it for growing up young people (Kulas, 1998, p. 222) or the other way round – experience of curiosity and sense of agency (Piotrowski, Wojciechowska, Ziółkowska, 2014, p. 16).

One of the personality traits models currently used in psychological analyses carried out on young people is the Big Five model by Robert Costa and Paul McCrae (1994). According to these authors, personality traits are inner dispositions what form the picture of oneself, belief in one's effectiveness and formulation of personal goals (McCrae, Costa, 1996, p. 51-87 ). The authors enumerate five universal personality traits: extraversion, neuroticism, conscientiousness, agreeableness and openness to experience (Costa, McCrae, 1994, p.22 ). In addition, they believe that personality traits are biological dispositions manifested in the way people react in different situations. It was also argued that changes in personality are the effect of socialization and life events (Oleś, 2000, p.32; Hopwood et al., 2011, p. 547-548; Geukes et al., 2019, p. 4-5) and also changes in the outer environment or nonnormative events that a human being can experience at each stage of their life. HellePullmann, LiisaRaudsepp and JüriAllik (2006, p.447) carried out longitudinal studies on developmental personality changes in the period of adolescence in a group of 2650 Estonian teenagers. These authors observed biggest developmental personality changes in the group of younger adolescents (12-14 years old). Within two years, the level of extroversion increased significantly in girls. The level of neuroticism and agreeableness decreased in both boys and girls. De Bolle and her collaborators (2015, p. 171) carried out international longitudinal study on close to 5000 teenagers. The study showed that girls in early adolescence had higher neuroticism than boys. This study also showed that girls aged 12 to 17 had higher conscientiousness and openness to experience than boys. Nevertheless, it appears that the most intriguing result of this study was the authors' conclusion stating that sex differences in personality traits emerge early, that is, in the period of early adolescence and are independent of culture.

There are also studies that show connection between personality traits and procrastination in school-age children. Based on a study carried out on 280 younger adolescents, Lay, Kovacs and Danto (1998) found negative correlation between conscientiousness and procrastination. On describing obtained results, they showed their similarity with the data obtained by other

researchers regarding connections between conscientiousness and procrastination among students (Lee, Edwards, & Kelly, 2006, p. 28, 34; Alzangana, 2017, p. 5). Procrastination is defined as a chronic tendency to delay, postpone actions and realization of tasks for later (Bańka, 2016, p. 110-111). It is connected with low self-esteem, self-regulation and sense of effectiveness (Özer, Ferrari, 2011, p. 37-38). Indecisiveness is a pattern of coping in stress situations. It has its roots in: extensive self-criticism, shyness, anxiety and depression (Saka & Gati, 2007, p. 344-345). Chronic procrastination is characterized by low level of self-control, extensive perfectionism, impulsiveness, anxiety and is negatively correlated with conscientiousness (Flett, Hewitt, Martin, 1995, p. 113-136; Lay, Edwards, Parker, Endler, 1989, p. 196-197). In the Big Five model, procrastination is connected with low conscientiousness and neuroticism (Watson, 2001, p. 156-157).

Procrastination is often equated with deficit of self-regulation processes that are connected with abilities to manage one's attention, hamper unwanted reactions and mental flexibility. These processes are responsible for, among other things, the ability to prioritize one's actions when it comes to their importance or urgency. They affect abilities connected with delaying gratification for later or resisting temptations. They allow one to focus on what is important and necessary to be done, and also on selecting the most optimal solution to a given problem. In the case of experienced difficulties, self-regulation processes allow for change of tactics and replacement of same with an alternative action – a more effective one. It is worth to notice that self-regulation processes develop intensively in the period of early adolescence, and their development might be linked with maturing of frontal lobes and increasing coordination between frontal lobes and other regions of the brain (Pačalska, Kaczmarek, Kropotov, 2014, p. 77). For these reasons, biological development of the brain in early adolescence might play an important role in procrastination behaviors. Nevertheless, inconsistent parental attitudes and extensive indulgence towards students at school or lifestyle promoted in mass media, which approves hedonistic attitudes and getting pleasure while avoiding things connected with orders and duties, all also play an important role in strengthening behaviors concerning delaying actions for later (Moilanen, Shaw, Fitzpatrick, 2010, p. 1359).

It might therefore be stated that biological factors but also social factors shape young person's attitudes towards work, duties and accurate planning of their actions in time. For the reasons enumerated above, young adolescents might be a group of particular risk in which the tendency to delay actions, especially aversive or not much interesting, might appear. Studies show that delaying negatively influences educational results of students. Klassen, Ang, Chong, Krawchuk, Huan, Wong and See, Yeo (2009, p. 807) carried out international studies on procrastination in a group of 612 teenagers from Canada and Singapore. They found that teenagers from Singapore had higher intensity of procrastination and lower self-regulation abilities when compared with their Canadian peers. What is more, analyses showed that boys had higher level of procrastination and lower self-regulation abilities when compared with girls.

According to Steel (2007, p. 70-75), delaying performance of tasks is connected with such personality traits as: low effectiveness, conscientiousness, self-control, achievement motivation and high. Enumerated factors constitute significant determinants of procrastination. Numerous studies on procrastination showed fear of failure, aversion towards realization of tasks and low sense of one's effectiveness as significant factors of procrastination behaviors occurrence (Wolters, 2003, p. 180-181). Spada, Hiou and Nikcevic (2006, p.319) concluded that there is a significant positive connection between anxiety, depression and behavioral delay (delaying specific actions) and decisional delay (delaying taking decisions). As a result of multiple regression analysis, it was observed that depression and beliefs regarding self-confidence might predict behavioral delay, while depression and beliefs regarding worry might predict decisional delay. These results suggest that trust in one's own metacognitive abilities is important when it comes to understanding behavioral delay. In addition, Haycock, McCarthy and Skay (1998, p. 321-322) verified how expectations regarding one's own effectiveness, anxiety and delay relate to specific academic project. They concluded that expectations regarding effectiveness (the level up to which one felt they possessed abilities that are necessary in order to complete a given task) were negative and significantly connected with anxiety and delay. In a subsequent model of regression, researchers concluded that only the sense of one's effectiveness was a predictor of delay.

Avoidance of realization of entrusted tasks, delay formulation of plans, goals into non-defined future might contribute to premature abandonment of school or avoidance of continuing further education. Lack of motivation to act, poor perseverance, low self-esteem, all make it significantly difficult for young people to function when it comes to education, or, in future years, also professional career (Tam, Busiol, Lee, 2016, p. 410-411).

Despite the fact that discussed studies show that there is a big interest in the connections between personality traits and various aspects of psychosocial functioning of people that are growing up, studies on connections between personality traits and procrastination, especially in persons in the period of early adolescence, are scarce.

## THE PRESENT STUDY

The aim of this study was to determine the connections between personality traits and the tendency to procrastination behaviors in the group of people in the period of early adolescence. It is suggested that chronic delay is a pressing problem – an individual one as well as a social one (Ferrari, 1994, p. 674-675; Ferrari, Dovidio, 2000, p. 127-128).

On the basis of review of literature, the following research questions were formulated:

1. Are there any differences between boys and girls when it comes to procrastination and personality traits?
2. Which of the personality traits are predictors of procrastination in boys and girls?

In accordance with the research problem, the following research hypotheses were formulated:

H1: Girls have higher intensity of neuroticism and conscientiousness when compared with boys (De Bolle et al., 2005, p. 173). Boys have higher level of procrastination than girls – which is suggested by the results of studies carried out by Klassen and his collaborators (2009, p. 807).

H2: Conscientiousness and neuroticism are important predictors of procrastination behaviors in boys and girls, even though different patterns of connections between these traits and procrastination are expected in boys and girls.

It was presumed that both in girls and boys, conscientiousness and emotional stability will be the predictors of procrastination behaviors. Nevertheless, due to the fact that in the light of some studies, girls in early adolescence have higher level of neuroticism and conscientiousness, when compared with boys (De Bolle et al., 2015, p. 173-174), it may be expected that both variables would be stronger predictors of procrastination in the group of girls than in the group of boys.

## **PARTICIPANTS AND PROCEDURE**

### **PARTICIPANTS**

530 students aged 13 to 15 in the seventh and eighth grades from four primary schools in Lublin took part in the study ( $M= 13.5$ ;  $SD=.48$ ; including 53,5% girls and 46,5% boys). Studies were carried out during one meeting with each class. They were carried out in compliance with ethical standards of conducting psychological research (Banayard, Flanagan, 2011, p. 69-81; Padilla, 2016, p. 4-5). The authors informed of the scientific aim of the study, voluntariness of taking part in studies and anonymity of provided answers. Studies were carried out with schools' principals' and children's parents' acknowledgement and consent.

### **MEASURE**

Ten Item Personality Inventory (TIPI-P) (Gosling, Rentfrow, Swann, 2003; in Polish adaptation of Łaguna, Bąk, Purc, Mielniczuk, Oleś, 2014) is a 10-item tool that measures personality traits in accordance with the five-factor model – the Big Five: extraversion, agreeableness, conscientiousness, emotional stability

and openness to experience. Psychometric properties of TIPI – P confirmed in validation procedure are satisfactory (Łaguna, Bąk, Purc, Mielniczuk, Oleś, 2014; p. 421-437). In recent years there is a tendency to apply shorten versions of psychological tools in group assessment in order to avoid fatigue, automatism in responding and resignation from fulfillment of the whole set of items by respondents (Credé et al., 2012; Gosling et al., 2003). From this reason, TIPI-P was used in this research as participants completed also other tools during one lesson. A person surveyed relates to each two-adjective statement on a scale from 1 – *disagree strongly* to 7 – *agree strongly* (Łaguna, Bąk, Purc, Mielniczuk, Oleś, 2014, p. 421-437 ). The result for each scale is the average of two items. The reliability of the scale is: from  $\alpha = 0,22$  (for agreeableness) to  $\alpha = 0,65$  (for emotional stability).

Pure Procrastination Scale (PPS – Steel, 2010; in a Polish adaptation of Stępień and Ciecuch, 2013, with corrections by Stępień and Topolewska, 2014, p. 145) was used to assess procrastination. The PPS scale consists of 12 items. The maximum score obtained by a participant is 60 points. The higher the score obtained by participants, the bigger is their tendency to procrastinate. The reliability of the tool was assessed by alfa Cronbach statistics, and the value of  $\alpha$  for indicators of general procrastination was .89 (Stępień, Topolewska, 2014, p. 145-160).

## RESULTS

Interpretation of obtained results was based on raw results obtained in two research tools used. Statistical calculations were carried out with the use of IBM SPSS Statistics 24.0. In the analyses the significance level was accepted at  $p < .05$ . At the beginning of the analyses, the normality of the distribution was tested with the use of Kolmogorov–Smirnov test. The distribution of variables was not significantly far from the normal distribution ( $p > .05$ ). In order to verify the research hypothesis, linear regression analysis was carried out. In this analysis personality traits were the predictors (explanatory variables), whereas procrastination was the explained variable.

Table 1 shows basic descriptive characteristics of analyzed variables.



**Table 1. Descriptive statistics for personality traits and procrastination in the whole group (N=533)**

Traits	Gender				t	p
	Girls		Boys			
	M	SD	M	SD		
Procrastination	31.10	8.20	30.00	8.10	1.99	0.84
Extraversion	5.20	1.58	5.30	1.59	-0.54	0.59
Emotional Stability	3.80	1.59	4.50	1.53	-5.10	<b>0.000***</b>
Openness to experience	4.75	1.10	4.64	1.22	1.10	0.26
Conscientiousness	5.00	1.43	4.90	1.36	1.10	0.28
Agreeableness	4.96	1.40	5.10	1.39	-0.97	0.33

Note: \*\*\*p < 0.001

In the next step, it was decided to verify whether there are differences in the range of procrastination and personality traits between boys and girls surveyed. Data presented in the above table indicate that boys have significantly higher emotional stability than girls.

Subsequently, regression analysis was carried out in the group of boys and in the group of girls separately. In this analysis, personality traits were the explanatory variable and procrastination – explained variable. The results of analyses are presented in table 3.

**Table 2. Results of regression analyses with personality traits as predictors and procrastination as a dependent variable**

Personality traits	Procrastination							
	Girls				Boys			
	$\beta$	SE	t	R <sup>2</sup>	$\Delta R^2$	$\beta$	SE	t
Extraversion	.34	.29	1.159			-.33	.30	-1.089
Agreeableness	.11	.32	.345			-.93	.32	-2.861**
Conscientiousness	-.36	.33	-7.586***			-2.03	12.33	-6.157***
Emotional Stability	-.92	.28	-3.275**			-.72	.30	-2.351
Openness to experience	.55	.40	1.392			-.30	.37	-.810
R <sup>2</sup>	.20	-	-			.21	-	-
R <sup>2</sup>	.19	-	-			.20	-	-

Note:  $p < .001^{***}$ ,  $p < .01^{**}$

Data presented in the above table show that in the case of girls, conscientiousness and emotional stability are significant predictors of procrastination. In the case of boys, agreeableness and conscientiousness are significant predictors of procrastination.

## CONCLUSION

The analyses that were carried out showed that boys in the period of early adolescence had significantly higher emotional stability than girls. This result partially confirms results obtained by other researchers. De Bolle et al. (2015, p. 175) demonstrated higher emotional stability in boys in the period of early adolescence. In the group of girls, conscientiousness and emotional stability turned out to be significant predictors of procrastination, whereas in the group of boys, agreeableness and conscientiousness. Conscientiousness is one of significant predictors of educational successes (Watson, 2001, p. 156-157). It is considered by the researchers a beneficial factor in school adaptation which

manifests itself through self-discipline and the ability to control impulses (Graziano, Ward, 1992, p. 426). It indicates tendency to being responsible, ambitious and disciplined in realized tasks (Somer, Korkomaz, Tatar, 2002, p. 22-23). In the group of boys, agreeableness also turned out to be an important predictor of procrastination. It is a somewhat puzzling result as this study showed slightly different dependencies when it comes to this factor when compared with studies carried out by Estonian researchers HellePullmann, LiisaRaudsepp, JüriAllik (2006, p. 447), in which agreeableness was not a significant predictor of procrastination in boys. Result obtained in this study might indicate that in boys, harmonious relations with other people, tendency to cooperate, avoidance of competition and social conflicts might promote the tendency to delay.

Obtained results also showed that boys and girls did not differ when it comes to the tendency to procrastinate. This result does not confirm earlier findings which indicated that boys in the period of adolescence have higher level of procrastination than girls (Klassen et al., 2009, p. 807-808). Studies carried out in different age groups also indicated the fact that sex differentiates the tendency to delay, while boys procrastinate more than girls (Wazid, Shahnawaz, Gupta, 2016, p. 191-192; Balkis, Erdinç, 2017, p. 108).

Carried out studies have their limitations. On carrying out the studies, the authors did not take into account the sense of one's own effectiveness (sense of one's competence and certainty of performing behaviors that would contribute to obtaining a given result) (Bandura, 1977, p. 193-194). More and more authors notice the relations between one's own effectiveness and procrastination (Steel, 2007, p. 67-68). In order to obtain a fuller picture of young people's functioning in the period of early adolescence, it would be worthwhile to test the role of motivation and self-esteem and educational results (Ryan & Connell, 1989, p. 759-760; Vallerand, Blais, Briere, Pelletier, 1989, p. 323-324; Vallerand, Bissonnette, 1992, p. 600).

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