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Typology of Perfectionists in the Context of Procrastination and Age among Female Students of Humanities

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Abstract: The study aims to find out the connection between perfectionists according to Parker (1997), Doktorová & Piteková, (2020a) namely functional, dysfunctional perfectionists and non-perfectionists, academic procrastination, and age in female students. Two questionnaires were used during the research, namely the Frost's Multidimensional Perfectionism Scale (F-MPS) and the Procrastination Scale for Student population (PSS), which we administered to the research sample (N = 344) in the age span of 18 to 25. Through the non-hierarchical cluster analysis (k-means) we identified three types of perfectionists in the sample. The comparison of three types of perfectionism with academic procrastination showed statistically significant differences in the following way: the dysfunctional perfectionists achieved the highest score on the scale of academic procrastination compared with functional perfectionists and non-perfectionists. Furthermore, we did not identify statistically significant differences between typology of perfectionism and age.

Keywords: *perfectionism typology; academic procrastination; age; female students; humanistic sciences.*

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1. Introduction

In our society, it very often happens that we postpone our responsibilities until later, which can be described as procrastination. The concept of procrastination is very popular, and we encounter it more and more often. However, to eliminate procrastination, we need to know what causes procrastination and what it is source. In this regard perfectionism is considered as a predictor of procrastination. This means that perfectionists are more likely to start procrastinating. For this reason, the aim of this research is to find out a connection between different types of perfectionists and academic procrastination. Perfectionism is a transdiagnostic process that occurs in a variety of disorders, including anxiety and related disorders, eating disorders and depression, especially in a group of students (Shahar et al., 2003). Their study focused on the link between increased levels of perfectionism and satisfaction with their social relationships after a short treatment of depression due to procrastination.

Nowadays the researchers (Murgašová, 2011; Wang et al., 2009) point to the positive aspect of perfectionism and highlight its positive impact on humans. Over the last two decades, there has been a growing interest in research into this phenomenon, especially in America (Stopková, 2005; Wang et al., 2009). In connection with the classification of perfectionism as healthy and unhealthy and so on, there are also exist other research (Hawkins, 2005; Hawkins et al., 2006; Park & Jeong, 2015; Parker, 1997; Rice & Lapsley, 2001), which through cluster analysis of dimensions of Frost's Multidimensional Perfectionism Scale (Frost et al., 1990) extend the construct into the tripartite typology of perfectionist individuals (Hawkins, 2005, Doktorová & Piteková, 2020a). Research (Arnett, 2007; Devečková, 2010; Doktorová & Piteková, 2020b) have found that the emerging adulthood in our conditions is characterized by a low level of stability and the search for one's own "self", in agreement with Devečková (2010). Lisa Lee (2007) researched the connection between perfectionism and age in the sample consists of students, whereas this connection was not significant. Equally, Lee (2007) did not find out the correlation between perfectionism and age in the research sample consists of medical students. C. E. Landy and J. A Bybee (2007) found out that the rate of perfectionism decreases with age. Procrastination developed in parallel with human development (Knaus, 2000). Other opinions also exist, which connect procrastination with the industrialization of society and admit it as a modern phenomenon (Ferrari et al., 1995). Most researchers (Ferarri et al., 1995; Knaus, 2000; Onwuegbuzie, 2000; Solomon & Rothblum, 1984) point out that procrastination behavior is characteristic: delay, uselessness, and

counterproductivity (Bujnovská & Greifová, 2010; Schouwenburg, 1995). In general, procrastination is considered a negative phenomenon. The rate of procrastination among humans increases and the highest prevalence of procrastination was found in the academic environment, especially at university students, compared to the general population (Schweigerová & Slavkovská, 2015; Steel, 2007). G. Rakes and K. Dunn (2014) researched the connection between perfectionism and procrastination in students with postgraduate education. The result confirmed that a higher level of procrastination is more likely in students with high perfectionism scores. They are also found out that the oldest perfectionist students have a higher propensity to procrastinate than younger perfectionist students (Rakes & Dunn, 2014). The research of A. J. Onwuegbuzie (2000) researched the connection between academic procrastination and perfectionism among postgraduate students. In the research of Saddler and Sacks (1993), they found out correlation only between socially prescribed perfectionism and academic procrastination. Seo (2008) researched that students with self-oriented perfectionism procrastinate less than other students.

The main aim of the research is to find out if there is a possibility to identify the tripartite typology of perfectionists according to Parker (1997), Doktorová & Piteková (2020a) in our research sample and explore the connection between three types of perfectionists and selected variables such as academic procrastination and age. Based on the present mentioned results of research above (Doktorová & Piteková, 2020b; Hawkins, 2005; Hawkins et al., 2006; Onwuegbuzie, 2000; Park & Jeong, 2015; Parker, 1997; Rakes & Dunn, 2014; Rice & Lapsley, 2001; Seo, 2008) we have formulated one research question and one hypothesis.

RQ: Is there a statistically significant difference between individual types of perfectionists in age?

H: We assume that dysfunctional perfectionists will have a significantly higher score in academic procrastination than dysfunctional perfectionists and non-perfectionists.

2. Methodology

2.1. Research sample

The research sample consists of female university students studying a full-time study program of humanistic sciences (N=344), ranging from 18 to 25 years. Based on the cluster analysis results, we divided the students into three clusters, whereas in the first cluster, there are students labeled as functional perfectionists, in the second as dysfunctional perfectionists, and

in the third as non-perfectionists. We selected the research sample for the study through purposive sampling in combination with occasional sampling. The participant's criterion of being included in the research was studying in the first to the fifth-year humanitarian field. We administered a battery of questionnaires to female university students of the first and second year of the humanitarian field. The data gathering was executed between May and June 2020. All participants participated in our research voluntarily and anonymously by filling in a battery of questionnaires in written form.

2.2. Materials and research tools

In the research, we used two questionnaires to analyze the rate of procrastination and the rate of perfectionism. The first method used to measure perfectionism which is the primary and dependent variable in our research, was the Frost Multidimensional Perfectionism Scale (Frost et al., 1990). The Frost's Multidimensional Perfectionism Scale (F-MPS) was constructed in 1990 based on the multidimensional construct of perfectionism proposed by Frost, Marten, Lahart, and Rosenblate (1990). F-MPS contained 35 items, and the respondent marks his answers on Likert's 5-grade scale. The scale consists of six dimensions: concern about mistakes (CM); doubts about action (DA), personal standards (PS), organization (O), parent's criticism (PC), parent's expectation (PE) (Frost et al., 1990). The reliability of the scale in the questionnaire F-MPS's internal consistency was examined by Cronbach's coefficient alpha, indicating high internal consistency (α = 0,887). According to the findings of Frost et al. (1990; Sliviaková, 2007, p. 38), the overall score of perfectionism is the indicator of attributing exaggerated importance to assigned tasks and higher rates of negative emotions in connection with an emphasis on appreciation and lower quality of performance (Nábělková & Filiačová, 2011).

As another questionnaire for measuring the rate of academic procrastination, which is marked in our research as an independent variable, we used The Procrastination Scale for Student population (PSS). It is a unidimensional self-report questionnaire of 20 items on a 5-point Likert scale according to how appropriately each item describes their behavior. The scale was constructed in 1986, and its author is C. H. Lay (1985; Bujnovská & Greifová, 2010). We proved a sufficient rate of the scale's reliability, whereas The Cronbach α coefficient as the scale internal consistency indicator was α = 0,889. Using it, we obtain information on whether the individual suffers from procrastination and to what extent. Based on the value of the summary score, the participant falls into one of three categories, from the lowest

procrastination rate to the highest procrastination rate (Bujnovská & Greifová, 2010).

2.3. Research procedure

The presented research is verification research, and it is quantitative research. In order to collect data, we used two questionnaires. In the form of organization, it belongs to typological procedures based on former findings (Parker, 1997; Doktorová, Piteková, 2020a) and procedures in that area we try to achieve identification of three types of perfectionists. We look for differences in age and procrationation between three types of perfectionism.

Our dependent variables: a typology of perfectionists can be set – functional, dysfunctional, and non-perfectional; and independent variables: academic procrastination and age can be set.

2.4. Statistical processing

We used mathematical-statistical procedures within the statistical system SPSS 21 (Statistical Package for Social Science) for Windows to analyze the quantitative data obtained from the questionnaires. In this program, we processed and analyzed the data. We used the following calculations and methods:

- reliability test (value of the Cronbach's coefficient)
- Kruskal-Wallis test (to examine the differences between groups.)

3. Results

Firstly, we verified a standard allocation of age between individual types of perfectionists. The normality test showed that age has not a normal distribution in the research sample, so we decided to verify the first research question by non-parametric test for two or more independent samples, specifically the Kruskal-Wallis test.

RQ1: Is there a statistically significant difference between individual types of perfectionists in age?

Table 1: Differences in age between three types of perfectionists
Source: Author´s own work

	Typology of perfectionism	N	MR	MIN	MAX	x^2	P
AGE	Functional perfectionists	178	82,78	19	25	2,731	**0,255**
	Dysfunctional perfectionists	60	99,68	19	25		
	Non-perfectionists	106	85,28	18	24		
	TOTAL	344					

N – quantity; MR – mean rank; MIN – minimum; MAX – maximum; x2– chi-square; p – achieved significance

In table 1, we can see that between individual types of perfectionists and age **does not exist any statistically significant difference** (p= 0,255), which may also be related to the fact that the age variance in the research sample is small (18-25 years). The difference between these variables is only descriptive. When we look at the descriptive values of mean rank, there are only minimal differences in age between the individual types; however, they are not significant. We can see that the dysfunctional perfectionists reach the highest score of the mean rank (MR_2 = 99,68) respectively, they reach the highest age, against the functional perfectionists (MR_1= 82,78) which reach the lowest age. Compared to them, the non-perfectionists (MR_3= 85,28) are in middle age.

Before exploring the differences between academic procrastination and individual types of perfectionists, we decided to determine the rate of academic procrastination among the female students in the research sample. In table 2, we can see a quantity, arithmetic average, standard deviation, and degree of academic procrastination.

Table 2: Description of distribution of academic procrastination in the research sample
Source: Author´s own work

DEGREE OF ACADEMIC PROCRASTINATION	N	%	M	SD
Non-procrastinators	10	2,9		
Low procrastinators	94	27,3		
Moderately procrastinators	152	44,2		
High procrastinators	88	25,6		
TOTAL	344	100	2,92	0,802

N – quantity; M – arithmetic average; SD – standard deviation

As we can see in table 2 in our research sample is the most represented group of moderately procrastinator subjects (N=344), which represents up to 44,2% of the sample. The second group with a significant difference is a group of low procrastinator subjects (N=94). The low procrastinator subjects represent 27,3% of the research sample. As s third one, there is a group of high procrastinator subjects (N=88), which are 25,6% of our sample. The smallest group represents non- procrastinator

subjects (N=10) which is only 2,9% of our sample. When we focus our attention on the descriptive values, the arithmetical average is M=2,92 with a standard deviation SD = 0,802. We do not mention the determination of arithmetical average and standard deviation for individual rates of academic procrastination because of recoding the individual rates of academic procrastination according to the manual, which classifies them from 1 to 4.

H1: We assume that dysfunctional perfectionists will have a significantly higher score in academic procrastination than dysfunctional perfectionists and non-perfectionists.

Firstly, we checked the standard allocation of academic procrastination between individual types of perfectionists. As we can see, academic procrastination does not have a standard allocation in the sample. For this reason, we used the non-parametric Kruskal-Wallis test.

Table 3: Differences in academic procrastination between individual types of perfectionism
Source: Author´s own work

	Three types of perfectionism	N	MR	x^2	P
ACADEMIC PROCRASTINATION – SUMMAR SCORE	Functional perfectionists	178	87,14	20,124	**0,000**
	Dysfunctional perfectionists	60	116,30		
	Non-perfectionists	106	68,56		
	TOTAL	344			

N – quantity; MR – mean rank; MIN – minimum; MAX – maximum; x2– chi-square; p – achieved significance

In table 3, we can see the importance of differences in academic procrastination between three types of perfectionism. It is a comparison of dysfunctional perfectionists with the other two types. We found out that the difference in the rate of academic procrastination in dysfunctional perfectionists compared to functional perfectionists and non-perfectionists did prove as statistically significant (p=0,000). If we consider the descriptive values of mean rank, then actually the dysfunctional perfectionists achieve higher values in academic procrastination (MR_2=116,30), which is significantly higher than for functional perfectionists (MR_1= 87,14) and non-perfectionists (MR_3=68,56). These descriptive differences in academic procrastination in dysfunctional perfectionists compared to the other two types proved statistically significant, so we **accept hypothesis 1.**

4. Discussion

4.1. Interpretation of results

In the study, we focused on identifying a typology of perfectionism; according to Parker (1997; Doktorová, Piteková, 2020a), the presented research sample consists of female university students and explore the differences between individual types in selected variables (academic procrastination and age). As can be seen from the presented results, the female students are considered medium perfectionists according to the F-MPS questionnaire. In the research question, we explored if there are differences between individual types of perfectionism. By comparison, we found no significant difference in age between the individual types of perfectionists. The age variance in the research sample was small (18-25 years), and it can also be responsible for this result. The mean rank value pointed out that the most significant age difference is between dysfunctional perfectionists and functional perfectionists. Hypothetically, this means that younger students are more functional, and older students are more dysfunctional perfectionists, while non-perfectionists should be within their range. If we had a more extensive age variance or more age categories in the sample, it would be interesting to examine whether the differences we found in the mean rank would prove to be significant. For comparison, Landa and Bybee (2007) found out in a sample of female university students that the rate of perfectionism decreases with age, which could be consistent with our descriptive description in terms of younger functional perfectionists and subsequently older non-perfectionists and oldest dysfunctional perfectionists. We cannot assess how these types of perfectionists would move overage because Landy and Bybee's (2007) research did not work with the tripartite typology of perfectionism. On the other side, there are also researches (Enns et al., 2001; Lee, 2007) that did not find a correlation between perfectionism and age which would be in line with our results. Based on this comparison, it is not fair to conclude that these differences do not exist. We can see that the typology of perfectionists in connection with age is not researched well enough. Besides, we must note that we did not have further research available to compare with the presented findings.

In the case of academic procrastination, we were interested in the finding that our research sample contained the most significant representation of moderately procrastinating students, followed by low procrastinating, then high procrastinating, and the smallest group was non-procrastinating students. If we count only female students who procrastinate more than "low", we will find that up to 69.8% of female students delay

their academic duties. According to Ferrari et al. (1995), this high percentage points to academic procrastination as a universally occurring phenomenon among students. This specific type of procrastination also interested us in the context of the typology of perfectionists. In the hypothesis, we assume that dysfunctional perfectionists will have a significantly higher score in academic procrastination than dysfunctional perfectionists and non-perfectionists. By comparing dysfunctional perfectionists to the other two types (see Table 3), we found that the dysfunctional perfectionists were significantly more procrastinate than functional perfectionists or non-perfectionists. This difference was also confirmed by descriptive values, which were identified as the least procrastinating non-perfectionists. It means that our assumption was significantly proved by analysis. The findings compared with the results of research conducted by Rakes and Dunn (2014) are fascinating. Their research found that a higher procrastination rate is more likely in students with a high rate of perfectionism. They also found out that older perfectionist students are more prone to procrastination than younger If we take into account the fact that the high scores of perfectionism are characteristic for dysfunctional perfectionists, and at the same time, they have a higher rate of procrastination, the results turn out to be consistent. However, Rakes and Dunn (2014) did not work with the tripartite typology of perfectionists, so we cannot say with certainty that this research would confirm our findings. Another interesting fact that we noticed is the group of characteristics related to older perfectionist students and their higher tendency to procrastinate. We can see a similarity with our results because the descriptive values pointed out that dysfunctional perfectionists are older than other types of perfectionism. Let us compare our results with the results of Brownlow and Reasinger (2000), who found that high levels of perfectionism contribute to procrastination. We find that these are analogous results and consider the connection between high perfectionism scores, which indicates dysfunctional perfectionism. Chronic delay of academic tasks can be subjectively manifested by irritability, despair, anxiety, depression, pathological fear, mood swings, the tension in social relationships, and an increased risk of health problems (Stoeber & Joormann, 2001).

4.2. Application of results in practice

Our results revealed several important contexts: that dysfunctional perfectionism is associated primarily with negative phenomena, such as a higher rate of academic procrastination.

4.3. Research limitations and suggestion of future research focus

After conducting the research, we revealed some limits that shall be mentioned. The first limit of the work may be the research sample, which consisted of only female students of humanities fields. In this context, we consider limiting the impossibility of generalization of these results to the whole population of students. Similarly, the low representation of female students in the scope of research and their uneven representation in individual years of university studies, and the low representation in the scope of the individual perfectionists can alter our results to a certain level. The other limit concerns the research tools used, and thus the fact that the data were collected through tools that were self - report. Some students could respond altered or socially desirable, which significantly reduced the quality of the obtained data. In the research, we focused on comparing the types of perfectionists with academic procrastination. However, there are several types of procrastination that the PSS scale, which we used, does not detect. It is also possible that a few female students in the research may have had a different type of procrastination than academic, thus distorting our results.

In future research, we can eliminate these limits by adding men to the research sample, adding more universities, or comparing students of medicine with students of the humanities or technology fields. It would also be ideal to use the results obtained in presented research on a non-clinical population of students in dysfunctional perfectionists and compare them with a group of clinically diagnosed perfectionists. Besides, we would like to identify differences in individual types of F-MPS and differences in personal characteristics between these groups.

5. Conclusions

Perfectionism is a dimensional construct that can vary from low to highest. Egan, Wade, Shafran & Antony (2014, p. 402) also report perfectionism as a transdiagnostic process in their study, arguing that if present, its non-treatment poses a transdiagnostic risk to multiple disorders. Bieling et al. (2004) examined the relationships of two types of perfectionism, maladaptive assessment and positive effort to psychological stress. From the results of the work they found that both maladaptive and adaptive perfectionism have a strong connection with depression, anxiety and stress. The relationship between perfectionism and depression was indirect through sensitivity to anxiety, and between perfectionism and anxiety was found through automatic negative thoughts (Pirbaglou et al., 2013). Wheeler et al. (2011; Burgess & Dibartolo, 2016) compared

individuals diagnosed with social phobia and with individuals diagnosed with other anxiety disorders and procrastination.

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