

The image of perfectionism in youth with diverse structure and intensity of anorexia readiness

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Summary

Aim. The aim of the research is to look for similarities and differences in the dimensions of perfectionism, perceived by the subjects with a diverse structure of anorexia readiness and isolated on the basis of cluster analysis.

Methods. As part of the research project, the following research tools were used: the Food Attitude Questionnaire by Ziólkowska and the Multidimensional Perfectionism Scale (FMPS) by Frost et al., translated and developed by Tucholska.

Results. In the study of the results of empirical research, cluster analysis based on k-means enabled isolation of 3 clusters (adapted group, egocentric group and anorectic group). Isolated clusters differ in the intensity of features constituting anorexia readiness. Tukey's *post hoc* analysis showed that at the level of perfectionism dimensions there are no statistical differences between 2nd and 3rd clusters. At the full-dimension level, it showed that clusters 2 and 3 achieve higher means than cluster 1 in all dimensions of perfectionism.

Conclusions. Summarising the results presented in this work, it can be pointed out that: (1) three groups have been distinguished: adapted, egocentric and anorectic; (2) the anorectic group obtained the highest score in all dimensions; (3) the isolated groups do not differ from each other in the structure of perfectionism; (4) the profile of mean scores on the dimensions of perfectionism in all three isolated groups is very similar.

Key words: youth, perfectionism, anorexia readiness syndrome

Introduction

Nowadays, anorexia nervosa is becoming a universal social phenomenon. Its escalation is surprising and at the same time it is difficult to explain the mechanism of its formation in youth [1-3]. Recent years have seen progress in understanding the reasons for the incidence and persistence of anorexia nervosa. It is indicated that genetic factors contribute to the risk of this disorder, psychosocial and inter-

personal factors can trigger the onset, and changes in neural networks can maintain this disorder [4].

The observed increase in susceptibility to anorexia nervosa is defined as *Anorexia Readiness Syndrome (anorectic emergency, anorectic behaviour)* [5]. Understanding the specificity of the functioning of individuals with a high level of *Anorexia readiness* and, additionally, a high level of perfectionism requires thorough research. Quick prevention in such situations is very important, as the combination of the above factors can lead to serious consequences in the form of eating disorders [5].

The set of symptoms implicating the suspicion of irregularities in the fulfillment of the nutritional need and attitude towards one's own body are very strongly combined with the need for perfectionism, high personal standards and excessive concern about one's mistakes. In this study, the author has searched for similarities and differences in the dimensions of perfectionism perceived by young people with a diverse structure of anorexia readiness.

Ziółkowska [5] identified and described a group at special risk of eating disorders. Anorexia readiness syndrome is a set of signs concerning food attitude and perception of one's own body before the onset of full-blown anorexia. These symptoms are milder and less severe than in anorexia, and they also occur periodically. Therefore, the diagnostic criteria are not included in the ICD-10 or DSM-5 classification [6].

For the purpose of this work, the following definition of the term anorexia readiness syndrome has been adopted [5, p. 89-90]: The term anorexia readiness syndrome (ARS) should be understood as *a psychologically, socially and culturally conditioned set of symptoms suggesting the suspicion of anomalies in the fulfillment of the nutritional need and attitude to one's own body*.

In turn, perfectionism means *constantly too high performance standards, which are accompanied by too critical self-regard*. People negatively assess their skills when meeting these erroneously self-imposed high standards [6-9]. Perfectionism is conceptualised in many dimensions [8, 10, 11]. Hewitt and Flett [12] point to three types of perfectionism. Self-oriented perfectionism refers to setting oneself high, unattainable standards and strict self-assessment of behaviour. Other-oriented perfectionism refers to the tendency to impose excessively high standards on others and to blame others when such standards are not met. Conversely, socially prescribed perfectionism refers to the belief that it is others who have high expectations and standards that an individual has to meet. This kind of perfectionism is also associated with the need for positive assessment by others [12].

Although in common understanding perfectionism is often portrayed positively and confused with diligence, Flett and Hewitt [8] maintain that it is neither positive nor adaptive. Other researchers [11, 13, 14] suggest that perfectionism is more strongly associated with maladaptive mechanisms such as mood disorders, depression, stress and anxiety. An unusually high level of perfectionism, especially in childhood, is a risk factor for anxiety, depression and eating disorders [15-17]. Studies [18-22] show that people with diagnosed eating disorders achieve significantly higher scores in respective dimensions of perfectionism than those in the control group.

Aim of study

The aim of the study is to look for similarities and differences in the dimensions of perfectionism, perceived by the subjects with a diverse structure of anorexia readiness and identified on the basis of cluster analysis.

The search for the relationship between the level and structure of anorexia readiness and the level of perfectionism concerned two stages: identification of extreme groups based on the severity of anorexia readiness and identification of the types of anorexia readiness and their corresponding image of perfectionism.

Subjects

The group consisted of 345 subjects. The individuals were selected randomly for the study. The study group was age and gender diverse. Considering gender, the subjects consisted of 198 female students and 147 male – the subjects were from the same age group (12–16 years). Both the subjects and their parents consented to participate in anonymous psychological tests.

Methods

As part of the research project, the following research tools were used:

- 1) Food Attitude Questionnaire by Ziółkowska [5], which allows achieving factor scores such as weight reduction (WR), food attitude (FA), parenting style (PS) and perception of one's own attractiveness (AP), and the general score of anorexia readiness syndrome;
- 2) The Multidimensional Perfectionism Scale (FMPS) by Frost et al. [7], translated and developed by Tucholska [23, 24]. The questionnaire gives an overall score and factor scores: CM – concern about mistakes, PS – personal standards, PE – parental expectations, PC – parental criticism, D – doubts about actions, O – order and organisation preference.

In the examination of the empirical research results, cluster analysis using the k-means method was applied.

Results

Typology of the subjects due to anorexia readiness

The first step in data analysis was to look for similarities and differences in the dimensions of perfectionism, perceived by the subjects with a diverse structure of anorexia readiness and identified on the basis of cluster analysis. For the whole group of $N = 345$ subjects, cluster analysis was performed with the k-means method. The aim of this analysis was to distinguish groups similar to each other due to the studied main dependent variable: anorexia readiness syndrome, which is divided into four dimensions: weight reduction, food attitude, parenting style, and perception of one's own attractiveness.

*The severity and structure of the features of anorexia readiness
in distinguished groups*

Cluster analysis according to the k-means method allowed to distinguish three clusters.

The means of each cluster are presented in Figure 1.

Cluster 1 – adapted group – no signs of irregularities in terms of weight reduction, food attitude, parenting style and perception of one's own attractiveness.

- This cluster included 153 subjects who did not manifest anorexia readiness. These individuals achieved similar scores at low level in four areas (weight reduction, food attitude, parenting style, perception of one's own attractiveness).

Cluster 2 – egocentric group – with signs of irregularity in parenting style and with increased level of perception of one's own attractiveness.

- There were 112 subjects in this cluster. All the subjects obtained a higher mean in anorexia readiness syndrome in two areas – parenting style and perception of their own physicality. It turns out that in this group, parenting style and perception of one's own attractiveness were the most important in building one's individual food attitude. The subjects who were in this group also achieved low or very low

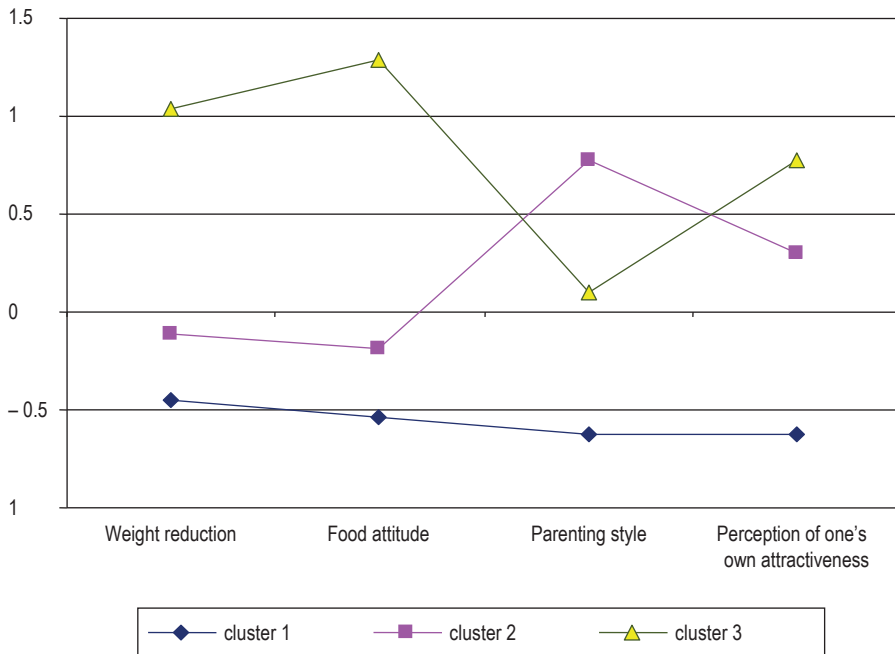


Figure 1. Graph of mean values (M) for clusters isolated based on anorexia readiness variable

levels of food attitude and weight reduction, which means that these are of little importance in terms of creating one's own image.

Cluster 3 – *anorectic group* – with signs of irregularity in weight reduction, food attitude, perception of one's own attractiveness and with lowered influence of parenting style in the family.

- There were 80 individuals in this cluster. These people achieved a high or very high level on the scales of weight reduction, food attitude and perception of their own attractiveness. They achieved significantly lower results only in the parenting style area. Presented high interactions of factors may hypothetically determine the expression of anorexic behaviour, which is an indicator of an unnatural food attitude, perception of one's own body and disorders in the area of experiencing and fulfilling the nutritional needs. At the same time, these individuals tend to intensify criticism of their own physicality and overestimate the role of physical appearance in everyday life [5].

Subsequently, an analysis of variance was performed to assess the significance of differences in terms of compared dimensions between the distinguished clusters. The results are presented in Table 1.

Table 1. Mean values (M) and standard deviations (SD) as well as differences between groups of isolated clusters in anorexia readiness syndrome factors

| Factors of anorexia readiness syndrome | Cluster 1 N=153 | | Cluster 2 N=112 | | Cluster 3 N=80 | | F | p | Post hoc |
|--|--------------------|------|--------------------|------|-------------------|------|--------|-------|---------------|
| | M | SD | M | SD | M | SD | | | |
| Weight reduction | 0.52 | 0.68 | 0.85 | 0.75 | 1.96 | 1.00 | 89.78 | 0.000 | 1:2, 1:3, 2:3 |
| Food attitude | 0.40 | 0.52 | 0.69 | 0.59 | 1.92 | 0.69 | 186.11 | 0.000 | 1:2, 1:3, 2:3 |
| Parenting style | 0.88 | 0.57 | 2.02 | 0.54 | 1.46 | 0.89 | 102.01 | 0.000 | 1:2, 1:3, 2:3 |
| Perception of one's own attractiveness | 3.14 | 1.33 | 4.74 | 1.45 | 5.57 | 1.48 | 89.69 | 0.000 | 1:2, 1:3, 2:3 |
| Overall score of AR | 4.94 | 1.55 | 8.29 | 1.52 | 10.93 | 2.22 | 339.63 | 0.000 | 1:2, 1:3, 2:3 |

The analysis of variance shows that the differences for the five dimensions regarding anorexic behaviour are statistically significant at $p < 0.001$. As indicated in Figure 1 and Table 1, the isolated clusters differ in the intensity of the features constituting anorexia readiness. The structure of the anorectic group is associated with a greater intensity of scores in the dimensions of weight reduction, food attitude, perception of one's own attractiveness and a high overall score. The egocentric group is characterised by the greatest intensification of the dimension of parenting style and increased perception of one's own attractiveness. Lower intensity of scores in terms of weight reduction and food attitude occurs in clusters 1 and 2. In addition, the adapted group is characterised by low intensity of parenting style and perception of one's own attractiveness.

The image of perfectionism in the individuals who are diverse in the level of anorexia readiness

The statistical analysis was conducted using ANOVA variance analysis, with Tukey's *post hoc* test. At the full-dimension level, it showed that clusters 2 and 3 achieve higher means in all dimensions of perfectionism than cluster 1. In terms of organisation and order preference, the scores of all clusters are very similar. The test score is $F = 0.333$ and there is no statistical difference ($p = 0.717$). The scores are illustrated in Table 2.

Table 2. Mean values (M) and standard deviations (SD) as well as differences between groups of isolated clusters in the factors of perfectionism

| Factors of perfectionism | Cluster1 N=153 | | Cluster 2 N=112 | | Cluster 3 N=80 | | F | p | Post hoc |
|---------------------------------------|-------------------|------|--------------------|------|-------------------|------|-------|-------|----------|
| | M | SD | M | SD | M | SD | | | |
| CM – concern about mistakes | 20.76 | 6.03 | 25.81 | 7.48 | 26.34 | 7.80 | 24.61 | 0.000 | 1:2, 1:3 |
| PS – personal standards | 22.97 | 5.18 | 24.79 | 4.87 | 23.95 | 4.83 | 4.30 | 0.014 | 1:2 |
| PE – parental expectations | 14.55 | 3.91 | 16.26 | 3.84 | 15.70 | 4.11 | 6.47 | 0.002 | 1:2 |
| PC – parental criticism | 6.58 | 2.54 | 9.17 | 3.90 | 9.02 | 4.19 | 22.96 | 0.000 | 1:2, 1:3 |
| D – doubts about actions | 10.92 | 3.15 | 12.65 | 3.11 | 12.88 | 3.31 | 14.26 | 0.000 | 1:2, 1:3 |
| O – order and organisation preference | 23.44 | 4.03 | 23.52 | 4.12 | 23.08 | 3.23 | 0.33 | 0.717 | - |

Tukey's *post hoc* analysis showed that at the level of perfectionism dimensions there are no statistical differences between 2nd and 3rd clusters. When comparing the mean (M) and standard deviations (SD) scores, it can be seen that clusters 2 and 3 have a very similar structure and intensity of the specific dimensions of perfectionism.

In the adapted group, where no abnormalities of behaviour related to anorexia tendency are noticed, perfectionism scores are also definitely lower than in the other two groups. People who are not predisposed to eating disorders place the greatest emphasis on order and organisation preference as well as on personal standards. Parental criticism does not matter to them, they try to pursue personal development and increase their capabilities and standards. In this group of people, significantly lower results occur in the dimension of concern about mistakes.

In the statistical analysis of the study it can be noticed that the egocentric and anorectic groups have a very similar distribution of scores attesting to the intensity of the dimensions of perfectionism; there are no significant differences. The greatest intensity occurs in the dimensions of concern about mistakes, personal standards and order and organisation preference, whereas the lowest score occurs on the parental criticism scale.

Discussion

The literature on the subject [10, 19, 20, 22] has repeatedly emphasised the impact of perfectionism on the occurrence of mental health disorders, including eating disorders in youth. Often, these data relate to inappropriate parents' attitudes expressed in excessive expectations and criticism of the child, which contribute to the onset of eating disorders. In Poland, research on the anorexia readiness syndrome and perfectionism is scarce and the results obtained are inconsistent [6].

Bruch (1978) was one of the first authors to describe patients with eating disorders as perfectionistic, focused on their self-esteem and attentive to other people's judgment [25].

According to Gałła [26], the need for perfectionism developed in childhood or adolescence becomes a risk factor that strengthens *anorexia nervosa* in adulthood. Inadequate (increased) self-esteem, having its origins in the ability to control and in the alleged approaching the ideal, is important in striving to maintain perfectionist attitudes. Also, the perseverance of specific activities, such as taking laxatives or exercising affects the strengthening of the perfectionist attitude, strengthens the anorexia readiness syndrome and thus becomes a factor that strengthens eating disorders.

The period of adolescence is especially risky. At this stage, the focus is primarily on one's external appearance – a person gets to know himself/herself through the eyes of those surrounding him – he perceives himself just like society perceives him. It is a period in which a person is susceptible to the influence of the upbringing environment, which results from his greater sensitivity at that time. This poses a great danger of developing anorexia not only in the people who have difficulty adapting to society, but also, and perhaps primarily, in the individuals who have already crossed the boundaries of a socially created ideal and are in their development further than the group of people around them, where they cannot find acceptance. Hence, anorexia may affect those people who, earlier than their peers, reached biological maturity attributed to a given period.

In the presented study, the group of people from cluster 2 are students who perceive their parents as more critical and demanding. It manifests itself particularly in an overly critical and unaccepting attitude towards the tasks performed by the child. This may also be revealed in relation to the child's physicality and the way he creates his image. If the child receives mostly negative messages in the form of criticism, then he formulates his image as a person unable to face problems and not deserving of success, which inevitably leads to an increase in the rate of anorexia readiness [27].

The results presented above are not consistent with the research by Minarik and Ahrens [28], who indicated that parental expectations and criticism are not related to the occurrence of eating disorders in their children. However, according to Shafran et al. [9], in the people with eating disorders, perfectionism can be interpreted as follows: "self-esteem depends on the constant striving to meet highly understood norms and standards imposed by a given person, e.g. in the area of weight loss, and this causes a disorder". The authors suggest that this is the core of psychopathology.

Other authors, e.g. Stieger et al. [29]; Thompson et al. report that the family environment has a great influence on the development of eating disorders, especially in the dimensions of perfectionism, such as parental expectations or parental criticism. Other dimensions of perfectionism unrelated to family factors, such as concern about mistakes or high personal standards, may also refer to eating disorders [28].

Moreover, a study by Clark and Coker [30] shows a relationship between the mother's maladaptive perfectionism and the child's self-criticism, as well as between the child's maladaptive perfectionism and the mother's self-criticism. This relationship occurs in girls but not in boys. Mothers who have high maladaptive perfectionism are much more critical of their children than mothers who have a low level of this perfectionism. Children with a higher level of maladaptive perfectionism had mothers who were more critical of their child and had a higher level of self-criticism. Interestingly, mothers of the children characterised by both high and low levels of dysfunctional perfectionism sent a similar amount of positive comments to the children. The conclusion is that children with a high level of dysfunctional perfectionism may have a tendency towards internalising a critical parental attitude, not a positive one. Mothers' criticisms are personally construed by the child and are more meaningful to the child than their praise. The study shows that there is no relationship between the maladaptive perfectionism of the mother and the child, while the mother's criticism is of great importance, and the higher her self-criticism, the more crucial it is in the interaction with the child.

Furthermore, research by Frost et al. [31] indicates that there is a positive correlation between the perfectionism of daughters and mothers. Mothers who perceived their own parents as having very high expectations of them were too critical of their daughters. In turn, mothers with a high level of perfectionism had daughters who were concerned about their mistakes and perceived their parents' expectations as higher. The study also showed that the daughter's high perfectionism does not correlate with the father's high perfectionism. Only the father's personal standards correlated with the daughters' personal standards and a higher organisation level. The conclusion is that fathers with high personal standards had daughters with the same high personal standards and a higher level of organisation. The study confirms that mothers' perfectionism is related to their daughters' perfectionism. Moreover, it was shown that concern about mistakes, personal standards and parental expectations correlated with the overall level of daughters' perfectionism. In contrast, concern about mistakes and parental expectations in the study of the daughters correlated with overall perfectionism, concern about mistakes and the mothers' personal standards. Parental criticism in the daughters correlated with parental expectations in the mothers. Parental criticism was also related to strict characteristics, both in the mothers and the fathers. In turn, concern about mistakes correlated with the fathers' harshness towards the daughters and mothers. The fathers' harshness was also associated with doubts about actions, personal standards and organisation in daughters.

Kawamura et al. [32] showed relationships between the parenting style and perfectionism in the children. The study was conducted in various ethnic groups. The results indicate that the relationship between parental traits and perfectionism in children

in relation to the gender (men/women) is dependent on the ethnic group. Caucasian Americans do not show significant differences between women and men in relation to parental traits and perfectionism in children. On the other hand, in the group of Asian Americans, there are such links between the father's harshness, parental criticism and concern about mistakes, and doubts about actions in children. In this study, it was also found that perceiving one's parents as authoritarian and strict was associated with a higher level of concern about mistakes and with doubts about actions rather than with personal standards. Concern about mistakes and doubts about actions reflect maladaptive perfectionism characterised by self-criticism, self-doubt, and a fear of not meeting one's expectations. On the other hand, the personal standards dimension of perfectionism is understood as adaptive perfectionism, thanks to which a person strives for achievement.

The presented study by the author has shown that the students from the anorexia group focus much more on the way of creating their own image. They show more attention towards physicality and concern about their own mistakes, they overly focus on failures and raise their personal standards.

The study results correspond with those published by Cockell et al. [18] who found that patients with eating disorders present themselves as ideal and reluctant to reveal their imperfections. Also, Bastiani et al. [33] demonstrated that patients with eating disorders show a higher level of self-imposed perfectionism.

In a review of studies on perfectionism and eating disorders, similar results to the above were obtained by Bardone-Cone et al. [34]. They conducted a study among the people who coped with eating disorders, as well as among the representatives of the control group. The authors of the research showed that perfectionism is definitely higher in the research group than in the control group. This study also proved that curing anorexia nervosa is not accompanied by a decrease in perfectionism. Moreover, it was found that perfectionism is not associated with the active phase of the disease and that it may be a risk factor for eating disorders. The authors of the study emphasise that perfectionism can also constitute long-term "scars" in the people who have coped with an eating disorder. Summarising the results obtained in the above study, perfectionism is a negative prognostic factor in the development of eating disorders.

Stoeber et al. [35] conducted research to find links between perfectionism and personality traits. The results showed that self-centered perfectionism correlates positively with conscientiousness. Also, neuroticism positively correlates with socially oriented perfectionism alone. Thus, it can be argued that high conscientiousness and high neuroticism in a given person as personality traits have a significant impact on the development of perfectionism.

Flett and Hewitt [8] show that apart from external factors, such as parenting style and environmental pressure, the person's personality also plays an important role in the development and shaping of perfectionism.

Summarising the above considerations, it should be noted that there are discrepancies in the literature on the subject. The authors of the studies present various, independent stands on the influence of the factors favouring the development of eating disorders.

It is difficult to compare the results of the study conducted among students on the structure and severity of perfectionism in the group with low and high scores in anorexia readiness, because for now the data in subject literature in this field are scarce.

Conclusions

Summarising the results presented in this work, it can be pointed out that: (1) three groups have been distinguished: adapted, egocentric and anorectic; (2) the anorectic group obtained the highest score in all dimensions; (3) the isolated groups do not differ from each other in the structure of perfectionism; (4) the profile of mean scores on the dimensions of perfectionism in all three isolated groups is very similar.

Summing up the proprietary research programme, it can be said that one of the advantages of this work is taking up the topic of anorexia readiness syndrome and perfectionism – insufficiently developed in psychological literature. Moreover, the study included the individuals who were not diagnosed with the disease, but different levels of anorexia readiness were indicated in these people. The problem of anorexia readiness syndrome and the severity and structure of perfectionism in adolescents is still very open and requires further exploration. It would be very interesting to compare the scores of the control group with the clinical group of the individuals suffering from anorexia.

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