

Perfectionism in theory and research

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ABSTRACT

Purpose

The purpose of the present article is to systematize knowledge about perfectionism – the relatively stable tendency to set unrealistic expectations for oneself or others. The article reviews studies conducted in recent years and presents the evolution of views on the development and importance of perfectionism for individual adjustment.

Theses

Knowledge about perfectionism is constantly expanding, which makes it necessary to describe the history of the study of this phenomenon, the evolution of ways of thinking, and the theoretical models that have emerged over the past decades. There are relatively few publications on this subject in the Polish literature, and the presented article aims to at

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least partially fill this gap. We present the results of a study on the relationship between perfectionism and important areas of human functioning, such as health, work and interpersonal relations, and point out factors associated with the development of this characteristic. We also present the most popular measures of perfectionism.

Conclusion

Perfectionism, initially viewed as an unambiguously negative disposition and treated as a predictor of psychopathology, in light of studies conducted in recent years should be treated as a complex personality characteristic that manifests itself in different manner, including positive and adaptive ones.

Keywords: perfectionism models, perfectionism study, perfectionistic strivings, perfectionistic concerns, adaptive perfectionism, maladaptive perfectionism, perfectionism measurement.

Introduction

Perfectionism is a multidimensional personality trait associated with having very high, often unrealistic standards and expectations and striving to achieve them flawlessly (Flett & Hewitt, 2002; Frost et al., 1993; Stoeber, 2018). This disposition is often accompanied by a tendency to be overly critical of oneself, depending on one's assessment of the achievement of standards (Flett & Hewitt 2002; Hewitt & Flett 2007; Stoeber & Otto, 2006). Manifestations of perfectionism are evident as early as childhood and adolescence (Flett et al., 2002a; Stoeber et al., 2009), and affect many areas of functioning, such as academics, sports, hobbies, and in adulthood, intimate relationships, professional activity and parenthood (Flett et al., 2003; Piotrowski, 2020a; Stoeber, 2018). However, although perfectionism can affect all areas of life, in most cases it manifests itself in areas specific to each individual (Stoeber, 2018).

Development of Studies on Perfectionism

Over the past few decades, there have been significant changes in the perception of perfectionism. Their essence is the shift from one-dimensional to multidimensional models, and from clearly negative to capturing its positive aspects as well. The beginning of systematic studies of perfectionism dates to the mid-20th century. At that time, a one-dimensional approach was dominant, in line with psychodynamic concepts of the time. Perfectionism was treated as a correlate of personality disorders, defined as a neurotic and dysfunctional pattern that was an indicator of psychopathology (Horney, 1950; Pacht, 1984; Weisinger & Lobsenz, 1981).

In opposition to the above one-dimensional conceptions of perfectionism was the model proposed by Hamachek (1978). This author pointed out that there is also a healthy and adaptive dimension to perfectionism, and introduced into

the scientific literature a division of perfectionists into two groups – unhealthy/neurotic and healthy perfectionists. Perfectionists in the first group view most of their actions as not good enough. They almost always feel that they could and/or should have done something better, and as a result, they almost never feel satisfaction with their tasks. The second group of perfectionists, despite equally high personal standards, are able to be less demanding of themselves – they allow themselves to make mistakes, are characterized by commitment, the ability to correct goals and accept differences between expected and achieved results (Hamachek, 1978).

The finding that perfectionism contains both positive and negative components has strongly influenced scientific studies of the trait, leading to the development of new theoretical models and new measurement methods. In the 1990s, two multidimensional models of perfectionism were developed, which are still the cornerstone of studies on the issue today. The first was proposed by Frost and colleagues (1990), who distinguished such manifestations of perfectionism as: personal standards (i.e. setting very high expectations for oneself, expecting quality and efficiency of performance); concern about mistakes (overreacting to mistakes made or imagined, linking them to failure and failure); doubting the quality of one's actions (tendency to question the quality and results of one's tasks); organizing (placing a high value on order, planning and good organization); parental expectations (experiencing excessive demands from parents); and parental criticism (being judged harshly by parents for mistakes made). A study by Frost and colleagues (1993) found that personal standards and organization formed a partially positive aspect of perfectionism, which was called perfectionistic strivings, while the other dimensions, especially fear of mistakes and doubting the quality of one's actions, were found to be strongly maladaptive, collectively forming a construct called perfectionistic concerns.

Shortly after Frost's model was published (1990), a second model of perfectionism appeared in the scientific literature by Hewitt and Flett (1991). These researchers described three different manifestations (or types) of perfectionism: self-oriented perfectionism, other-oriented perfectionism and socially prescribed perfectionism.

Self-oriented perfectionism is demanding of oneself to meet unrealistically high standards, critically evaluating oneself and striving for perfection. Other-oriented perfectionism is demanding high, often unrealistic standards from other people, often from relatives and significant others (partner, children, co-workers). Socially-prescribed perfectionism is characterized, in turn, by the subjective belief that it is others who have high demands and expectations of the individual, and that these demands must be met.

The study showed that the dimensions described in Frost's and Hewitt and Flett's models are interrelated. Factor analyses revealed that self-oriented perfectionism, like the personal standards and organization from Frost's model, can be identified with the positively-oriented dimension of perfectionistic striving, while socially-prescribed perfectionism was found to be a manifestation of dysfunctional perfectionistic concern (Domocus & Damian, 2018; Piotrowski, 2019; Stoeber & Otto, 2006). Individual differences in the intensity of perfectionistic

strivings and concerns became, in turn, the basis for empirically distinguishing the two types of perfectionists described earlier by Hamachek (1978): adaptive perfectionists (characterized by high perfectionistic strivings and low perfectionistic concerns at the same time¹) and maladaptive perfectionists (high perfectionistic strivings and high perfectionistic concerns at the same time; Piotrowski, 2019; Stoeber & Otto, 2006). A model based on these two factors – perfectionistic strivings and concerns – fulfills a contemporary role as a conceptual framework, organizing the different dimensions of perfectionism and guiding research (Stoeber, 2018).

Correlates of Perfectionism

Perfectionism and Mental and Somatic Health

Researchers conducting studies in clinical trials, pay particular attention to the links between mental and physical health and perfectionistic concerns, with somewhat less attention paid to perfectionistic strivings (Stoeber, 2018). Particular attention has been paid to the role of perfectionism in eating disorders (Bulik et al., 2003; Lilenfeld, 2011; Tozzi et al., 2004) and obsessive-compulsive disorder (Broday, 1988). The association of perfectionism with sexual dysfunction, including erectile dysfunction (Lilenfeld, 2011; Quadland, 1980), anxiety and affective disorders (Klibert et al., 2015), alcohol abuse (Flett et al., 1989), and suicidal tendencies, both in adolescents (Atala & Baxter, 1989) and adults (Hewitt & Flett, 1991), has also been studied. In addition, the association of perfectionism with depressive mood, feelings of hopelessness and helplessness has been verified (Hewitt & Flett, 1991, 1993; Smith et al., 2016), with clinical depression with episodes of hypomania and dysthymia (Ashby et al., 2006; Blatt, 1995; Hewitt & Flett, 1990). Perfectionism has also been linked to personality disorders, particularly histrionic and borderline personalities (Hewitt & Flett, 1991; Hewitt et al., 2008). The characteristic has also been linked to sleep problems (Akram et al., 2015) and stomach problems (Flett et al., 2016). It is also associated with greater physiological reactivity, including elevated blood pressure, poor mood, e.g., strong and prolonged negative affect in response to stress and failure (Curran & Hill, 2019).

¹ In the literature on perfectionism, it is not uncommon to see authors misusing these terms and equating perfectionistic strivings with adaptive perfectionism, and perfectionistic concerns with maladaptive perfectionism. This is an overly reductionist approach. Perfectionistic strivings can be adaptive or maladaptive depending on how strong perfectionistic concerns accompany them. A study of adaptive and non-adaptive perfectionism therefore requires a shift away from a variable-centered perspective toward a person-centered perspective. In the latter case, it is advisable to rely on procedures such as, for example, cluster or latent class analysis in analyzing the results, in order to isolate subgroups with different configurations of perfectionistic strivings and concerns.

Correlational studies of the relationship between perfectionism and mental health in children and adolescents (Morris & Lomax, 2014) point to similar disorders as in adults, such as depression, anxiety, eating disorders, and obsessive-compulsive disorder. However, as the authors of the review point out, studies to date lack a multidimensional approach to perfectionism and research on psychological interventions that take into account the family factor in the emergence and maintenance of perfectionism.

Studies adopting a multidimensional approach (Stoeber & Otto, 2006) have shown that the dimension of perfectionistic strivings is negatively related to levels of suicidal thoughts, depressive symptoms and lower tendency to feel guilt. What's more, people with high levels of perfectionistic strivings and simultaneously low levels of perfectionistic concerns achieve higher levels of self-esteem, lower levels of anxiety, procrastination, dysfunctional stress coping styles and interpersonal problems. They also report lower levels of somatic symptoms and symptoms of psychological discomfort compared to those with high levels of perfectionistic strivings and high levels of perfectionistic concerns (maladaptive perfectionists) and compared to non-perfectionists, characterized by no or low levels of perfectionistic strivings and concerns (Stoeber & Otto, 2006; Stoeber, 2018).

Perfectionism and Work Activity

In a study verifying the relationship between perfectionism and work and the phenomenon of workaholism, the so-called perfectionistic work style was identified (Hornowska & Paluchowski, 2007). This style is characterized by striving for perfect, flawless and qualitative performance of assigned tasks, a strong focus on order, competition and achieving only professional success and not tolerating failures. The result of a perfectionistic work style is often job burnout. Maslach and Leiter (2017) describe burnout as a process of depletion of emotional resources and gradual depersonalization, evident in progressive indifference to others and low evaluation of personal achievement and professional effectiveness. Burnout is accompanied by a sense of constant fatigue and a negative attitude toward the workplace, co-workers, customers, or superiors (Stoeber & Damian, 2016). Hill and Curran (2016), in a meta-analysis of the associations between perfectionistic strivings and concerns and occupational burnout, showed that perfectionistic strivings had weak negative or nonsignificant associations with job burnout, in contrast to perfectionistic concerns. Their results also suggest that perfectionistic strivings may, at least to a small extent, provide protection against the onset of job burnout, while perfectionistic concerns expose the individual to severe and increasing stress.

Interpersonal Relations

Perfectionism also affects areas of life such as relationship formation, including romantic relationships. In a study conducted by Habke and colleagues (1999), the relationship between perfectionism and sexual satisfaction was examined.

The sample included 74 married or cohabiting couples. They found that the interpersonal dimensions of perfectionism, i.e. socially-prescribed perfectionism and other-oriented perfectionism, were negatively related to overall sexual satisfaction and relationship satisfaction in both men and women. In addition, the regression analysis conducted showed that other-oriented perfectionism in women was a unique predictor of lower overall sexual satisfaction, and in men it was associated with lower satisfaction with their partner's contribution to the sexual relationship.

In another study, Haring and colleagues (2003) examined the relationship between perfectionism, marital relationship quality (defined as feelings of happiness in the relationship) and overall satisfaction with the romantic relationship. The study involved 76 couples between the ages of 18 and 54. As predicted, one of the interpersonal dimensions of perfectionism, socially-prescribed perfectionism, was associated with poorer marital adjustment. Other-oriented (in this case, partner-oriented) perfectionism was also associated with low overall satisfaction with the romantic relationship. Similar results were obtained by Stoeber (2012). His study included 58 couples. Both measured dimensions of perfectionism – other-oriented and socially-prescribed perfectionism – were found to correlate negatively with romantic relationship satisfaction. Partner-oriented perfectionism was also negatively related to long-term commitment to the relationship. In addition, participants who believed that their partner expected perfection from them were less satisfied with their relationship than those participants who did not view their partner in this manner.

Perfectionism has also been linked to social isolation. Maladaptive perfectionists, characterized by strong concerns, are sometimes overly preoccupied with how they are judged by others, focus on expectations and criticism, and feel that everyone expects more from them than they can give. They associate the better performance of others with personal failure, which makes it difficult for them to build satisfying relationships. They also place more importance on task completion than on interpersonal relationships (Hewitt & Flett, 1991; Stoeber, 2012; Piotrowski, 2020; Piotrowski, 2020a), which leads to a reduction in the social network, including the social support network.

Roots of Perfectionism

The Role of Genetic Factor

To date, few studies have been conducted on the genetic determinants of perfectionism. Among the few exceptions is a study conducted in Japan (Kamakura et al., 2003) on the genetic and environmental causes of eating disorders among female twins. It involved 162 pairs of twins, including 116 pairs of monozygotic twins and 46 pairs of dizygotic twins in adolescence. The results of the study revealed an additive genetic contribution of 37%. In contrast, a study by Wade and Bulik (2007), using a sample of monozygotic and dizygotic female twins aged

28 to 39 with eating disorders, assessed the sources of individual differences in three dimensions of perfectionism: concern about mistakes, personal standards and doubting the quality of one's actions. The results showed the contribution of an additive genetic factor to all dimensions of perfectionism, with the genetic factor explaining between 25% and 39% of the variance in perfectionism. Excessive effects of weight or body shape on self-esteem shared only 10% of the sources of genetic and environmental variance with perfectionism, suggesting that the common cause model of perfectionism and eating disorders is not the best explanation for the relationship between the variables. Iranzo-Tatay and colleagues (2015), on the other hand, showed that while perfectionism is at least in part based on genetics, its expression requires specific experiences that directly condition which type of perfectionism, self-oriented or socially-prescribed perfectionism, will be formed. The heritability coefficient for self-oriented perfectionism was 23% in boys and 30% in girls, and socially-prescribed perfectionism was 39% in boys, 42% in girls (see also the study by Tozziet al., 2004).

The Role of Personality Factors

Conscientiousness and neuroticism are considered important personality predictors of perfectionism (McCrae & Costa, 2005). Studies show that high scores obtained on the conscientiousness scale correlate with perfectionistic strivings, which is associated with the ability to plan, good organization, methodical action and intrinsic motivation (Stoeber et al., 2009). A longitudinal study conducted by Stoeber and colleagues (2009) in a group of adolescents aged 14–19 found that high conscientiousness predicts an increase in self-oriented perfectionism over time. In another study by Stoeber (2016), self-oriented perfectionism, in addition to a significant positive correlation with conscientiousness, negatively correlated with agreeableness, which is in line with the results presented earlier linking perfectionism and interpersonal difficulties. In contrast, in a study by Dunkley and colleagues (2012), perfectionistic concerns were associated not only with high levels of neuroticism, but also with low levels of agreeableness, resulting in negative, antagonistic attitudes toward other people, distrust, little or no altruism, or unwillingness to give way to others and compromise. Similar results were obtained by Stoeber (2016) for socially-prescribed perfectionism, observing a significant positive correlation with neuroticism, and negative correlations with agreeableness and extraversion. For other-oriented perfectionism, meanwhile, a negative correlation with agreeableness was observed (Stoeber, 2012).

The Role of Family Factors

As early as the late 1970s and early 1980s, a hypothesis was put forward about the relationship between perfectionism and attachment style (Hamachek, 1978; Pacht, 1984), and in subsequent years Hewitt (1991) described the development of perfectionism in the context of relationships with parents, siblings, peers and

romantic partners. In his view, it is the perception of significant others as judgmental and critical that shapes a fragile and fragmented sense of self, dominated by low self-esteem and shame. For the perfectionist, the need to be perfect and gain approval from others is a strategy to compensate, repair and protect damaged self-esteem.

Also Frost (1990) in his model drew attention to the aspect of family determinants of perfectionism. According to this researcher, the root of having unrealistically high standards of one's own functioning lies primarily in parental demands and authoritarian parenting style (Baumrind, 1967). Internalization of high expectations results in pressure to achieve and be perfect, which leads to the formation and perpetuation of perfectionism (Domocus & Damian, 2018; Stoeber & Otto, 2006; Stoeber & Childs, 2011). Thus, for Frost and colleagues (1990), a central component of perfectionism is the sense that parents have set or are setting standards that are hard to live up to, and at the same time that failure to live up to them leads to a loss of their acceptance, love and closeness. The same happens when parenting is accompanied by strong anxiety, especially about mistakes or their consequences (Domocus & Damian, 2018). The child then develops rigorous expectations of himself, and a strong connection is made between self-esteem and performance, as well as fear of disappointing others (Hamachek, 1978; Neumeister, 2004). This is, according to Morris and Lomax (2014), the main source of the child's formation of a maladaptive form of perfectionism, low self-esteem, a sense of ineffectiveness, irrational beliefs and, consequently, the emergence of psychological problems.

The Role of Educational Factors

In addition to the closest caregivers, people such as teachers and coaches can also contribute to the development of perfectionism (Stoeber & Childs, 2011). Stoeber and Eismann (2007), studying young musicians (13–20 years old), verified to what extent perceived pressure from parents and teachers is related to their motivation, effort, achievement and perceived distress. The study assumed that, like parents, teachers also shape development, and like them, they can show support but also create pressure, causing severe stress. The results revealed that teacher pressure correlated positively with perfectionistic strivings, concerns about being imperfect, and parental pressure. Dunn and colleagues (2006), studying athletes, showed that the strongest predictors of socially-prescribed perfectionism were attention to mistakes and parental and coach pressure. Coaches, like parents, thus proved to be central figures associated with increased fear of evaluation and disapproval – the central manifestations of perfectionism.

Damian and colleagues (2017) conducted a 9-month longitudinal study on the relationship between perfectionism and school achievement. This was the first longitudinal study to verify the relationship between perfectionistic strivings, concerns and academic achievement. In addition, unlike usual, the researchers examined whether school success and higher academic achievement could stimulate the development of perfectionism. The study included 487 adolescents aged 12–19.

The results revealed that high academic achievement was a common factor in the development of both perfectionistic strivings and perfectionistic concerns. A year later, Domocus and Damian (2018) in a short-term longitudinal study (two measurements three months apart) with adolescents (ages 14–19) found that parental and teacher influences may increase the risk of developing perfectionism in young people, but also that they may be a protective factor. Teachers' pressure was not found to be significant for the increase in perfectionism, while their support was the main protective factor, leading to a decrease in perfectionistic concerns.

The Influence of Socio-Cultural Factors

One more factor can be added to the above conclusions: socio-cultural influences. Curran and Hill's (2019) meta-analysis, compiled from studies conducted between 1989 and 2016, revealed that cultural changes may have influenced the growth of perfectionism in recent decades. The results of the study confirmed a linear increase in perfectionism over the period analyzed, and in each of the dimensions: self-oriented, other-oriented and socially-prescribed perfectionism. Based on Markus and Kitayama's (2010) model, the researchers assumed that the dominant cultural values of a society at any given time reflect the norms of social, family, academic, religious, economic and political institutions. This, in turn, shapes individual attitudes, values, beliefs, but also personality. Just as culture leads to the formation of individual differences between citizens of different countries, the culture of different periods can produce generational personality differences (Curran & Hill 2019). Researchers have identified neoliberalism and competitive individualism, meritocracy, and a controlling and anxiety-ridden parenting style as key cultural changes that can influence the development of perfectionism (Curran & Hill 2019).

Measuring Perfectionism

Unidimensional Measures to Study Perfectionism

Similar to models conceptualizing perfectionism, the first questionnaires to measure this trait focused on its maladaptive dimension. An example is the questionnaire developed by Burns (1980), a modification of Weissman and Beck's (1978) Dysfunctional Attitude Scale (DAS). The scale prepared by Burns (1980) – the Perfectionism Scale – consisted of 10 statements measuring compulsivity and striving to achieve unrealistic goals. It also included a self-evaluation scale, the score of which depended on an assessment of one's own performance and perceptions of one's effectiveness. Three years later, Garner and colleagues (1983) added to the EDI (Eating Disorder Inventory), which measures eating disorders, a subscale to measure perfectionism. The measure, still in use today, consists of 64 items, forming eight subscales. Perfectionism is one of them, and the items forming the

perfectionism subscale relate to the expectation of exceptional achievement in life and the feeling of pressure to succeed. The Polish version of the Eating Disorders Questionnaire was prepared by Namysłowska and Żechowski (2008). Polish studies also use the Perfectionistic Work Style subscale, derived from the Workaholism Questionnaire by Hornowska and Paluchowski (2007). This style refers exclusively to the negative aspects of perfectionism, understood as the exaggerated striving for perfection in the performance of assigned tasks, hindering or preventing efficient functioning as a result (Hornowska & Paluchowski, 2007).

It is important to remember, however, that the use of unidimensional measures, such as those indicated above, carries several limitations. First, studies using them focus exclusively on maladaptive aspects of perfectionism, reinforcing the notion that perfectionism is “a kind of psychopathology” (Stoeber, 2018). This framing does not provide an accurate description of perfectionistic strivings and concerns, nor does it allow for a comparison of their impact on an individual’s functioning.

Multidimensional Measures to Study Perfectionism

Among the most widely used contemporary measures of perfectionism are Frost and colleagues’ Multidimensional Perfectionism Scale (FMPS; Frost et al., 1990) and Hewitt and Flett’s Multidimensional Perfectionism Scale (HMPS; Hewitt & Flett, 1991). The FMPS questionnaire is used to measure perfectionists’ task functioning and to assess the family environment. The 6-dimensional scale included such factors as personal standards (PS; Personal Standards), concern over mistakes (CM; Concern over Mistakes), doubting the quality of one’s actions (DAA; Doubts About Actions), being organized (O; Organization), parental expectations (PE; Parental Expectations) and parenthood criticism (PC; Parental Criticism). The questionnaire consists of 35 items. It considers the subscales CM and DAA (indicators of perfectionistic concerns) and PS (indicator of perfectionistic strivings) to be the most relevant, i.e. the key dimensions of perfectionism. However, the PE, PC and O dimensions are questionable, with a growing consensus that parental behavior should be viewed as conditions for the development of perfectionism, rather than perfectionism per se (Stoeber, 1998; Stoeber & Otto, 2006). In contrast, the O scale, because it correlates positively only or mainly with the PS scale, is not considered a key indicator of perfectionism (Stoeber, 1998; Stoeber & Otto 2006). A Polish adaptation of the FMPS questionnaire was prepared by Piotrowski and Bojanowska (2019).

Hewitt and Flett’s (1991) HMPS questionnaire, to a greater extent than FMPS, focuses on the social functioning of perfectionists. The questionnaire assesses three manifestations of perfectionism: self-oriented perfectionism (SOP), other-oriented perfectionism (OOP) and socially-prescribed perfectionism (SPP). The questionnaire comes in two versions, a full 45-item version (Hewitt & Flett, 1991) and an abbreviated 15-item version (Cox et al., 2002; Hewitt et al., 2008; Stoeber, 2016). The shortened version was used in a study by Piotrowski (2020), who also demonstrated its factor validity in the Polish version.

Another popular questionnaire for assessing perfectionism is the Almost Perfect Scale-Revised (APS-R; Slaney et al., 2001), which measures three dimensions of perfectionism: high standards, organization/order and discrepancy. A particularly important dimension that distinguishes Slaney and colleagues' (2001) approach is discrepancy, indicating the subjective belief of meeting or not meeting excessive expectations. It is the high discrepancy that is treated here as an indicator of perfectionistic concerns and a component of maladaptive perfectionism. The APS-R measure also has several modifications that pay more attention to the relational aspects of perfectionism. These are: FAPS – The Family Almost Perfect Scale (Wang, 2010), used to measure the extent to which an individual perceives his or her family members as imposing perfectionistic standards on him or her (studies on adaptations of this scale are currently being conducted in our team), and DAPS – Dyadic Almost Perfect Scale (Shea & Slaney, 1999) used to assess perfectionistic expectations toward a partner in a romantic relationship. Piotrowski (2020a) is the author of a Polish adaptation of the DAPS scale and its modification, called C-DAPS – The Children Dyadic Almost Perfect Scale, which measures perfectionistic expectations for one's children².

Summary

The main purpose of the article was to briefly review and systematize the existing knowledge on perfectionism. Studies conducted in recent decades have contributed to a better understanding of its specifics and correlates, and have led to the development of valid and reliable measures. However, many questions about perfectionism still remain unanswered. These include questions about the definition, prevalence and stability of perfectionism, as well as its impact on other domains of human functioning. More longitudinal studies verifying temporal and causal relationships are needed to find answers. Cross-sectional studies, while important and valuable, do not allow us to conclude whether perfectionism is a cause or a consequence of the variable of interest to the researcher. Cross-sectional studies also do not show differences over the lifespan, although we know that perfectionism can change even over fairly short periods of time (Damian et al., 2013).

References

- Akram, U., Ellis, J. G., & Barclay, N. L. (2015). Anxiety mediates the relationship between perfectionism and insomnia symptoms: A longitudinal study. *PLOS ONE*, *10*(10). DOI: 10.1371/journal.pone.0138865.

² Polish- and English-language versions of DAPS and C-DAPS are available at <http://kennethwang.com/apsr/measures.html> and from the author.

- Ashby, J. S., Rice, K. G., & Martin, J. L. (2006). Perfectionism, shame, and depressive symptoms. *Journal of Counseling & Development, 84*, 148–156. DOI: 10.1002/j.1556-6678.2006.tb00390.x.
- Atala, K., & Baxter, R. (1989). Suicidal adolescents. *Postgraduate Medicine, 86*, 223–230. DOI: 10.1080/00325481.1989.11704447.
- Baumrind, D. (1967). Child care practices anteceding three patterns of preschool behavior. *Genetic Psychology Monographs, 75*(1), 43–88.
- Blatt, S. J. (1995). The destructiveness of perfectionism: Implications for the treatment of depression. *American Psychologist, 12*, 1003–1020. DOI: 10.1037/0003-066X.50.12.1003.
- Brodav, S. F. (1988). Perfectionism and the millon basic personality patterns. *Psychological Reports, 63*, 791–794. DOI: 10.2466/pr0.1988.63.3.791.
- Bulik, C. M., Tozzi, F., Anderson, C., Mazzeo, S. E., Aggen, S., & Sullivan, P. F. (2003). The relation between eating disorders and components of perfectionism. *The American Journal of Psychiatry, 160*, 366–368. DOI: 10.1176/appi.ajp.160.2.366.
- Burns, D. (1980). The perfectionist's script for self-defeat. *Psychology Today, 11*, 34–52.
- Cox, B. J., Enns, M. W., & Clara, I. P. (2002). The multidimensional structure of perfectionism in clinically distressed and college student samples. *Psychological Assessment, 14*(3), 365–373. DOI: 10.1037/1040-3590.14.3.365.
- Curran, T., & Hill, A. P. (2019). Perfectionism is increasing over time: A meta-analysis of birth cohort differences from 1989 to 2016. *Psychological Bulletin, 14*, 410–429. DOI: 10.1037/bul0000138.
- Damian, L. E., Stoeber, J., Negru, O., & Băban, A. (2013). On the development of perfectionism in adolescence: perceived parental expectations predict longitudinal increases in socially prescribed perfectionism. *Personality and Individual Differences, 55*(6), 688–693. DOI: 10.1016/j.paid.2013.05.021.
- Domocus, J., & Damian, L. (2018). The role of parents and teachers in changing adolescents' perfectionism: A short-term longitudinal study. *Personality and Individual Differences, 131*, 244–248. DOI: 10.1016/j.paid.2018.05.012.
- Dunkley, D. M., Blankstein, K. R., & Berg, J. L. (2012). Perfectionism dimensions and the five-factor model of personality. *European Journal of Personality, 26*, 233–244. DOI: 10.1002/per.829.
- Dunn, J. G. H., Dunn, J.C., Gotwals, J. K., Vallance, J. K. H., Craft, J.M., & Syrotulik, D.G. (2006). Establishing construct validity evidence for the Sport Multidimensional Perfectionism Scale. *Psychology of Sport and Exercise, 7*, 57–79. DOI: 10.1016/j.psychsport.2005.04.003.
- Enns, M. W., Cox, B. J., Sareen, J., & Freeman, P. (2001). Adaptive and maladaptive perfectionism in medical students: A longitudinal investigation. *Medical Education, 35*(11), 1034–1042. DOI: 10.1046/j.1365-2923.2001.01044.x.
- Flett, G. L., Besser, A., Davis, R. A., & Hewitt, P. L. (2003). Dimensions of perfectionism, unconditional self-acceptance, and depression. *Journal of Rational-Emotive and Cognitive-Behavior Therapy, 21*(2), 119–138. DOI: 10.1023/A:1025051431957.
- Flett, G. L., & Hewitt, P. L. (2002). *Perfectionism and maladjustment: An overview of theoretical, definitional, and treatment issues*. In G. L. Flett & P. L. Hewitt (Eds.),

- Perfectionism: Theory, Research and Assessment* (pp. 5–31). Washington DC: American Psychological Association. DOI: 10.1037/10458-001.
- Flett, G. L., Hewitt, P. L., & Dyck, D. G. (1989). Self-oriented perfectionism, neuroticism and anxiety. *Personality and Individual Differences, 10*, 731–735. DOI: 10.1016/0191-8869(89)90119-0.
- Flett, G. L., Hewitt, P. L., Oliver, J. M., & Macdonald, S. (2002a). Perfectionism in children and their parents: A developmental analysis. In G. L. Flett & P. L. Hewitt (Eds.), *Perfectionism: Theory, Research and Assessment* (pp. 89–132). Washington DC: American Psychological Association. DOI: 10.1037/10458-001.
- Flett, G. L., Nepon, T., & Hewitt, P. L. (2016). Perfectionism, worry and rumination in health and mental health: a review and a conceptual framework for a cognitive theory of perfectionism. In F. M. Sirois & D. S. Molnar (Eds.), *Perfectionism, Health and Well-Being* (pp. 121–155). New York: Springer. DOI: 10.1007/978-3-319-18582-8_6.
- Frost, R. O., Marten, P., Lahart, C., & Rosenblate, R. (1990). The Dimensions of Perfectionism. *Cognitive Therapy and Research, 14*(5), 449–468. DOI: 10.1007/BF01172967.
- Frost, R. O., Heimberg, R. G., Holt, C. S., Mattia, J. I., & Neubauer, A. L. (1993). A comparison of two measures of perfectionism. *Personality and Individual Differences, 14*, 119–126. DOI: 10.1016/0191-8869(93)90181-2.
- Habke, A. M., Hewitt, P. L., & Flett, G. L. (1999). Perfectionism and sexual satisfaction in intimate relationships. *Journal of Psychopathology and Behavioral Assessment, 21*(4), 307–322. DOI: 10.1023/A:1022168715349.
- Haring, M., Hewitt, P. L., & Flett, G. L. (2003). Perfectionism, coping, and quality of intimate relationships. *Journal of Marriage and the Family, 65*, 143–158. DOI: 10.1111/j.1741-3737.2003.00143.x.
- Hamachek, D. E. (1978). *Encounters with the self*. New York: Holt, Rinehart and Winston.
- Hewitt, P. L., & Flett, G. L. (1990). Perfectionism and depression: a multidimensional analysis. *Journal of Abnormal Psychology, 100*, 98–101. DOI: 10.1037/0021-843X.100.1.98.
- Hewitt, P. L., & Flett, G. L. (1991). Perfectionism in the self and social contexts: Conceptualization, assessment, and association with psychopathology. *Journal of Social Behavior and Personality, 5*(5), 423–438. DOI: 10.1037/0022-3514.60.3.456.
- Hewitt, P. L., & Flett, G. L. (2007). When does conscientiousness become perfectionism? *Current Psychiatry, 6*(7), 49–60.
- Hewitt, P. L., Habke, A. M., Lee-Baggley, D. L., Sherry, S. B., & Flett, G. L. (2008). The impact of perfectionistic self-presentation on the cognitive, affective, and physiological experience of a clinical interview. *Psychiatry: Interpersonal and Biological Processes, 71*, 93–122. DOI: 10.1521/psyc.2008.71.2.93.
- Hill, A. P., & Curran, T. (2016). Multidimensional perfectionism and burnout: a meta-analysis. *Personality and Social Psychology Review, 20*, 269–288. DOI: 10.1177/1088868315596286.
- Horney, K. (1950). *Neurosis and human growth: the struggle toward self-realization*. New York: W. W. Norton. DOI: 10.4324/9781315010526.
- Hornowska, E., & Paluchowski, W. J. (2007). *Praca – skrywana obsesja [Work – a hidden obsession]*. Poznań: Bogucki Wydawnictwo Naukowe.

- Iranzo-Tatay, C., Gimeno-Clemente, N., Barberá-Fons, M., Rodríguez-Campayo, M. Á., Rojo-Bofill, L., Livianos-Aldana, L., Beato-Fernandez, L., Vaz-Leal, F., & Rojo-Moreno, L. (2015). Genetic and environmental contributions to perfectionism and its common factors. *Psychiatry Research*, *230*, 932–939. DOI: 10.1016/j.psychres.2015.11.020.
- Kamakura, T., Ando, J., Ono, Y., & Maekawa, H., (2003). A twin study of genetic and environmental influences on psychological traits of eating disorders in a Japanese female sample. *Twin Research*, *6*(4), 292–296. DOI: 10.1375/136905203322296647.
- Klibert, J., Lamis, D. A., Naufel, K., Yancey, C. T., & Lohr, S. (2015). Associations between perfectionism and generalized anxiety: Examining cognitive schemas and gender. *Journal of Rational-Emotive and Cognitive-Behavior Therapy*, *33*, 160–178. DOI: 10.1007/s10942-015-0208-9.
- Lilenfeld, L. R. R. (2011). Personality and Temperament. *Current Topics in Behavioral Neurosciences*, *6*, 3–16. DOI: 10.1007/7854_2010_86.
- Markus, H. R., & Kitayama, S. (2010). Cultures and selves: A cycle of mutual constitution. *Perspectives on Psychological Science*, *5*, 420–430. DOI: 10.1177/1745691610375557.
- Maslach, C., & Leiter, M. P. (2017). Understanding burnout: New models. In C. L. Cooper & J. C. Quick (Eds.), *The handbook of stress and health: A guide to research and practice* (pp. 36–56). Hoboken, NJ: Wiley Blackwell.
- McCrae, R. R., & Costa, P. T. (2005). *Osobowość dorosłego człowieka. Perspektywa teorii pięcioczynnikowej [Adult personality. A perspective of the five-factor theory]*. Kraków: Wydawnictwo WAM.
- Morris, L., & Lomax, C. (2014). Review: Assessment, development, and treatment of childhood perfectionism: A systematic review. *Child and Adolescent Mental Health*, *19*, 225–234. DOI: 10.1111/camh.12067.
- Neumeister, K. L. S. (2004). Factors influencing the development of perfectionism in gifted college students. *Gifted Child Quarterly*, *48*(4), 259–274. DOI: 10.1177/0016-98620404800402.
- Pacht, A. R. (1984). Reflections on perfection. *American Psychologist*, *39*(4), 386–390. DOI: 10.1037/0003-066X.39.4.386.
- Piotrowski, K. (2019). Perfectionism and Identity Process in Two Domains: Mediation Roles of Worry, Rumination, Indecisiveness, Shame, and Guilt. *Frontiers in Psychology*, *10*, 1–11. DOI: 10.31234/osf.io/hnvmw.
- Piotrowski, K. (2020). How good it would be to turn back time: adult attachment and perfectionism in mothers and their relationships with the processes of parental identity formation. *Psychologica Belgica*, *60*(1), 55–72. DOI: 10.5334/pb.492.
- Piotrowski, K. (2020a). Child-oriented and partner-oriented perfectionism explain different aspects of family difficulties. *PLOS ONE*, *15*(8), 1–19. DOI: 10.1371/journal.pone.0236870.
- Piotrowski, K., & Bojanowska, A. (2019). Factor structure and psychometric properties of a Polish adaptation of the Frost Multidimensional Perfectionism Scale. *Current Psychology*, *40*(6), 2754–2763. DOI: 10.1007/s12144-019-00198-w.
- Quadland, M. C. (1980). Private self-consciousness, attribution of responsibility, and perfectionistic thinking in secondary erectile dysfunction. *Journal of Sexual and Marital Therapy*, *6*, 47–55. DOI: 10.1080/00926238008404245.

- Shea, A. J., & Slaney, R. B. (1999). *The Dyadic Almost Perfect Scale*. Unpublished manuscript. The Pennsylvania State University, University Park.
- Smith, M., Sherry, S. B., Rnic, K., Saklofske, D. H., Enns, M., & Gralnick, T. (2016). Are perfectionism dimensions vulnerability factors for depressive symptoms after controlling for neuroticism? A meta-analysis of 10 longitudinal studies. *European Journal of Personality, 30*(2), 201–212. DOI: 10.1002/per.2053.
- Stoeber, J. (1998). The Frost Multidimensional Perfectionism Scale: More perfect with four (instead of six) dimensions. *Personality and Individual Differences, 24*(4), 481–491. DOI: 10.1016/S0191-8869(97)00207-9.
- Stoeber, J. (2012). Dyadic perfectionism in romantic relationships: predicting relationship satisfaction and longterm commitment. *Personality and Individual Differences, 53*, 300–305. DOI: 10.1016/j.paid.2012.04.002.
- Stoeber, J. (2016). Comparing Two Short Forms of the Hewitt–Flett Multidimensional Perfectionism Scale, *Sage Journals, 25*(5), 578–588. DOI: 10.1177/1073191116659740.
- Stoeber, J. (2018). The psychology of perfectionism: critical issues, open questions, and future directions. In J. Stoeber (Ed.), *The psychology of perfectionism: theory, research, applications* (pp. 333–352). London: Routledge.
- Stoeber, J., & Childs, J. H. (2011). *Perfectionism*. In R. J. Levesque (Ed.), *Encyclopedia of adolescence* (pp. 2053–2059). New York: Springer.
- Stoeber, J., & Damian, L. E. (2016). *Perfectionism in employees: work engagement, workaholism, and burnout*. In F. M. Sirois & D. S. Molnar (Eds.), *Perfectionism, health, and well-being* (pp. 265–283). New York: Springer. DOI: 10.1007/978-3-319-18582-8_12.
- Stoeber, J., & Eismann, U. (2007). Perfectionism in young musicians: Relations with motivation, effort, achievement, and distress. *Personality and Individual Differences, 43*, 2182–2192. DOI: 10.1016/j.paid.2007.06.036.
- Stoeber, J., & Otto, K., (2006). Positive conceptions of perfectionism: Approaches, evidence, challenges. *Personality and Social Psychology Review, 10*(4), 295–319. DOI: 10.1207/s15327957pspr1004_2.
- Stoeber, J., Otto, K., & Dalbert, C. (2009). Perfectionism and the Big Five: conscientiousness predicts longitudinal increases in self-oriented perfectionism. *Personality and Individual Differences, 47*(4), 363–368. DOI: 10.1016/j.paid.2009.04.004.
- Tozzi, F., Aggen, S. H., Neale, B. M., Anderson, Ch. B., Mazzeo, S. E., Neale, M. C., & Bulik, C. M. (2004). The Structure of Perfectionism: A Twin Study. *Behavior Genetics, 34*(5), 483–494. DOI: 10.1023/B:BEGE.0000038486.47219.76.
- Wade, T. D., & Bulik, C. M. (2007). Shared genetic and environmental risk factors between undue influence of body shape and weight on self-evaluation and dimensions of perfectionism. *Psychological Medicine, 37*(5), 635–644. DOI: 10.1017/S003329-1706009603.
- Wang, K. T. (2010). The Family Almost Perfect Scale: Development, Psychometric Properties, and Comparing Asian and European Americans. *Asian American Journal of Psychology, 1*, 186–199. DOI: 10.1037/a0020732.
- Weisinger, H., & Lobsenz, N. M. (1981). *Nobody's perfect: How to give criticism and get results*. New York: Warne.

- Weissman, A., & Beck, A. (1978). Dysfunctional Attitude Scale DAS. Development and validation of the dysfunctional attitude scale: a preliminary investigation. Paper presented at the Annual Meeting of the *American Educational Research Association*, 62, Toronto, Canada, 1–33.
- Żechowski, C. (2008). Polska wersja Kwestionariusza Zaburzeń Odżywiania (EDI) – Adaptacja i normalizacja [*Polish version of Eating Disorder Inventory – Adaptation and normalization*]. *Psychiatria Polska [Polish Psychiatry]*, 42(2), 179–193.