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Comparison of Perfectionism and Related Positive-Negative Dimension in People With High Traits on Obsessive Compulsive and Eating Disorder Characteristics

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Background: Psychopathological perfectionism is often correlated with obsessive compulsive eating disorders.
Objectives: The purpose of this study was to investigate perfectionism in people with high traits of obsessive compulsive and eating disorder characteristics.
Materials and Methods: This study was an expo fact research. The statistical population of the research comprised of male and female undergraduate students at Tabriz and Sarab branches of Payam-e-Noor University, Tabriz Islamic University and Azarbaijan Shahid Madani university in the academic year 2012-2013. A group of 640 university students, using the stratified random sampling method were screened by the obsessive compulsive inventory and the eating attitude test, then a group of 143 participants with high obsessive compulsive traits with another 137 participants with high eating disorder characteristics were selected and assessed with the Perfectionism Inventory. Data were analyzed using one way analysis of variance.
Results: The results showed that perfectionism and related negative dimension are more commonly found in people with high obsessive-compulsive traits than eating disorder characteristics ($P < 0.02$). The results showed the highest contribution of maladaptive perfectionism in predicting obsessive-compulsive features and pathological eating attitude. Also, no difference was found between the two groups in terms of negative perfectionism.
Conclusions: The greater association of perfectionism with symptoms of obsessive-compulsive is consistent with its phenomenological feature. Fear of failure may motivate the behavioral components of perfectionism that aim to focus on careful checking, reassurance seeking and excessive consideration before making a decision.

Keywords: Compulsive Behavior; Eating Disorders; Obsessive-Compulsive Disorder

1. Background

Perfectionism is typically defined as the setting of excessively high performance standards accompanied by over critical self-evaluations (1). Based on the evidences, there are different definitions of the construct of perfectionism. Hill et al. (2) identified eight dimensions of perfectionism, which are as follows, concern over mistakes, high standards for others, need for approval, organization, parental pressure, planfulness, rumination, and striving for excellence. In this approach, perfectionism is comparable in the context of the previous adaptive (positive) and maladaptive (negative) aspects of perfectionism and makes a clearer distinction between adaptive and maladaptive aspects. Positive perfectionism consists of organization, planfulness, striving for excellence and high standards for others aspects, whereas negative perfectionism consists of the need for approval, concern over mistakes, parental pressure and rumination. At the clinical level, obsessive-compulsive disorder (OCD) is characterized by intrusive thoughts that produce uneasiness, apprehension, fear, or worry, by repetitive behaviors aimed at reducing the associated anxiety, or by a combination of such obsessions and compulsions. Eating disorders refer to a group of conditions defined by abnormal eating features that include bulimia nervosa (BN) and anorexia nervosa (AN) that are characterized by preoccupation with food and body weight (3). In the earliest descriptions about eating disorders, obsessive-compulsive symptoms have been described as part of these disorders (4). The possibility of a relationship between OCD and AN was first suggested by Palmer and Jones (5). Early descriptive studies suggested that 50% to 100% of patients with AN showed obsessive or compulsive features (5). However, at the time these studies were conducted, the distinction between obsessive-compulsive traits and OCD had not been established, hence they tended to include traits (such as perfectionism) as well as behaviors such as obsessions and compulsions as evidence of "obsessive-compulsive difficulties". For example, Kaye et al. (6) administered the Yale-Brown obsessive-compulsive scale (Y-BOCS) to 19 patients with AN and showed that their mean Y-BOCS score was 22, similar to the score reported for patients with OCD. Moreover, researchers (7, 8) have reported that approximately 25% to 69% of patients with AN

will develop some characteristics of obsessive-compulsive disorder. Studies that have compared rates of OCD in AN and BN have usually found higher comorbidity in AN (9, 10). Two studies examined the presence of eating difficulties in individuals with OCD. Both reported high rates of disordered eating behaviors and attitudes as evidenced by increased scores on both the Eating Disorders Inventory and the eating attitudes test (11, 12). However, diagnostic and statistical manual of mental disorders, 4th, text revised (DSM-IV-TR) has identified clear valuable ideas about thinness as a diagnostic feature of this disorder (3). These valuable ideas about weight and food serve as obsession that comes with ritual behavior that are normally observed in anorexia nervosa, and may have some overlaps with OCD. Therefore, the two categories of eating disorders and obsessive-compulsive disorder had the highest comorbidity (5, 13, 14); inflexible pervasive perfectionism is a common feature of both of them (15, 16). In its abnormal form, perfectionism is closely associated with eating disorders (16-20) and obsessive-compulsive disorder (21-25). Regarding this connection, Bernert (26) reported high level of perfectionism and obsessive-compulsive symptoms among patients with eating disorders. It seems that perfectionism patterns are variable in associated mental disorders. In this regard, Geller et al. (27) found higher levels of both self-oriented and socially prescribed perfectionism among anorexia patients compared to a mixed group of mood disorder patients and nonclinical controls. Only one study has directly compared depressed, anxious and eating disorder patients on these dimensions of perfectionism (28). In a large twin study, concern over mistakes was associated with a higher odds ratio for eating disorders but not for major depression and anxiety disorders; doubts about actions was associated with a higher odds ratio for both eating disorders and anxiety disorders but not for major depression. Personal standards was not associated with an elevated odds ratio for any of the disorders. Sassaroli et al. (16) compared patients with major depression, obsessive-compulsive disorder, and eating disorders on dimensions of perfectionism. Results showed concern over mistakes was elevated in each of the patient groups while pure personal standards was only elevated in the eating disorder sample. A doubt about actions was elevated in both patients with obsessive-compulsive disorder and eating disorders, but not in patients with depression. The main concern that lead to the current study was the lack of sufficient data about the role of perfectionism in people with high traits on obsessive-compulsive and eating disorder characteristics. At the non-clinical level, people who have some mild symptoms of obsessive-compulsive disorder or eating disorders that do not meet the diagnostic criteria of related disorders are known to have "high trait obsessive-compulsive characteristics" and "high trait eating disorder attitudes".

2. Objectives

This study aimed to answer the question of whether the severity of perfectionism differs in obsessive-compulsive characteristics and eating disorder attitudes?

3. Materials and Methods

This research was an expo fact study. The statistical population of the research comprised of male and female undergraduate students at Tabriz and Sarab branches of Payame- Noor university, Tabriz Islamic university and Shahid Madani university of Azarbaijan in the academic year of 2012 - 2013. A group of 640 students were selected using the multi-stage random sampling method and the Morgan sampling table. Based on normative data of obsessive-compulsive inventory-revised, among these candidates, a group of 143 people that had high scores of one standard deviation above the mean as 'high traits of obsessive-compulsive' group, and another 137 participants who had high scores one standard deviation above the mean for Eating Attitude Test as 'high eating disorders characteristics' group were selected and assessed by the perfectionism inventory. The final selected obsessive-compulsive subjects consisted of 65 women with a mean age and standard deviation of 23.86 ± 3.99, and 78 men with a mean age and standard deviation of 24.25 ± 5.22. The majority of participants were single and a few were married (108 versus 18 participants) (18), and eleven did not indicate their marital status. All cases were undergraduate students; no participants reported any serious psychiatric or medical disorders. The selected subjects with eating disorder characteristics consisted of 59 women with a mean age and standard deviation of 26.22 ±7.99, and 78 men with a mean age and standard deviation of 25.34 ± 6.05. After choosing the groups of participants, the researcher introduced himself to the students and told them about the research objectives. The subjects were then given the questionnaires. In accordance with the research ethics and the rights of subjects, all participants were (verbally and by writing) noted that the participation in this study was voluntarily and that all obtained information was for research purposes. To ascertain security, the participants were not required to write down their names or other private information. Only the "gender" box had to be checked. As far as the execution of the questionnaires was concerned, it was decided that half the subjects took the some Scale first, for the other half to begin with the others. This was to neutralize the probable impacts of the order in which the questionnaires were completed. One-way analysis of variance was conducted in order to evaluate the degree to which perfectionism and its positive-negative dimension scores could be differentiated by the obsessive compulsive and eating disorder characteristics groups.

3.1. Research Tools

The study questionnaires were:

A- the eating attitude test (EAT), which is a 26-item self-report factor-analytically derived scale, originally validated on a sample of 160 women with eating disorders and 140 female nonclinical controls (29). It is reliable and valid, correlates highly with the original 40-item scale (30), and

screens the cases of eating disorders in both clinical and nonclinical populations. The EAT is scored on a six-point Likert scale with answers range from never to always. In an Iranian sample, its internal consistency has been reported as 0.86 and it has good factorial validity (31).

B- obsessive-compulsive inventory-revised (OCI-R) (32) is an 18-item questionnaire, which assesses six areas of checking, washing, ordering, obsessing, neutralizing and hoarding. Responses are recorded by a five-point scale, which ranges from not at all to extremely. Previous researches generally support its internal consistency and test retest reliability (33). Its internal consistency was reported to be high by an Iranian study (Cronbach's alpha from 0.72 to 0.85) and its construct validity was reported favorable (33).

C- The perfectionism inventory (PI) is a self-report measure consisting of 59 items with a five-point rating scale ranging from one (strongly disagree) to five (strongly agree). These items comprise of eight subscales, including concern over mistakes, high standards for others, need for approval, organization, parental pressure, planfulness, rumination, and striving for excellence. Hill et al. (2), using a sample of 366 undergraduate students, reported adequate internal consistency among each of the subscales and components with alpha coefficients ranging from 0.75 to 0.91. Test-retest reliability over a three to six-week interval (M interval of 4.5 weeks) using a sample of 82 undergraduate students (63 females and 19 males) was 0.71 - 0.91. Finally, the scale demonstrated good convergent validity with three other measures of perfectionism, including the brief symptom inventory, the obsessive-compulsive inventory, and the Marlowe-Crowne social desirability scale within a college sample (2). Internal consistency among Iranian samples was as 0.90. In Iran its concurrent validity was investigated by Jamshidy et al. (34) reporting an adequate coefficient.

4. Results

Mean and standard deviation of the number of people with high traits of obsessive compulsive and eating disorder characteristics in positive and negative perfectionism is shown in Table 1. Before using parametric one way analysis of variance test, homogeneity of variance was used for data analysis. Leven's test showed that the equality of variance assumption was approved. Table 2 summarized the results of this section. To compare people with high traits of obsessive compulsive and eating disorder characteristics in positive and negative perfectionism, one-way analysis of variance was used. According to Table 3, A) there was a significant difference in perfectionism amongst the two groups ($P > 0.02$); perfectionism was more common in people with high obsessive-compulsive traits than eating disorder characteristics.

B) There was no significant differences in positive perfectionism amongst the two groups ($P > 0.15$), C) There was a significant difference in negative perfectionism amongst the two groups ($P > 0.008$); negative perfectionism was more common in people with high obsessive-compulsive traits than eating disorder characteristics.

Table 1. Mean and Standard Deviation of Perfectionism in the Two Groups with Obsessive Compulsive and Eating Disorder Characteristics

Group	Values
Perfectionism	
Obsessive compulsive	217.11 ± 28.46
Eating disorder	209.54 ± 26
Positive perfectionism	
Obsessive compulsive	104.17 ± 14.82
Eating disorder	101.71 ± 14.10
Negative perfectionism	
Obsessive compulsive	112.94 ± 16.34
Eating disorder	110.94 ± 15.06

Table 2. Leven's Homogeneity Test

	Leven's Index	df1	df2	Sig.
Perfectionism	0.45	1	278	0.50
Positive perfectionism	0.005	1	278	0.98
Negative perfectionism	1.14	1	278	0.28

Table 3. The Results of One Way Analysis of Variance

	Sum of Square	df	Mean of Square	F	Sig.
Perfectionism					
Between groups	4011.34	1	4011.34	5.38	0.02
Within groups	207000.23	278	744.60		
Total	211011.27	279			
Positive perfectionism					
Between groups	422.37	1	422.37	2.01	0.15
Within groups	58064.44	277	209.61		
Total	58086.82	278			
Negative perfectionism					
Between groups	1746.01	1	1746.01	7.35	0.008
Within groups	68827.96	278	247.58		
Total	70573.98	279			

5. Discussion

The purpose of this study was to investigate perfectionism in people with high traits of obsessive compulsive and eating disorder characteristics, and the results showed that perfectionism and related negative dimensions are more common in people with high obsessive-compulsive traits than eating disorder characteristics. As mentioned in the introduction, perfectionism is closely associated with eating disorders, obsessive compulsive traits, and other psychopathological disorders. It seems that fear of failure can launch a perfectionistic behavior component leading to checking, reassurance, and extreme concerns before making a decision (17). One of the reasons that perfectionism had a minor role in eating disorder attitudes, compared with obsessive compulsive traits, was related to perfectionism measurement questionnaires that strongly measure obsessive compulsive symptoms rather eating disorder symptoms. The case that has been observed in all instruments. For example, concern over mistakes is more common in obsessive compulsive disorders, and it seems that measures more strongly obsessive compulsive disorder than perfectionism (19). Perfectionism has been suggested to be a "necessary but insufficient trait for development of OCD" (35) and the obsessive compulsive cognitions working group (36) consider perfectionism to be a risk factor for the development of the disorder. Many patients with obsessive-compulsive disorder (OCD) report the need to have something flawless, certain, or exact. Compulsions must be performed in "exactly the right way" in response to obsessions and the need for symmetry/exactness is a symptom of the disorder (7). Such doubts about actions have been considered as part of the construct of perfectionism (1) and are clearly part of the phenomenology of OCD. This is acknowledged by Frost, who states that "doubting of the quality of one's actions has been a hallmark of OCD and indeed, may reflect symptoms of patients with checking rituals" (19). Thus, the major role of perfectionism in predicting obsessive-compulsive symptoms, which was indicated in this study, is justifiably in line of obsessive compulsive disorder phenomenology. When analysis was performed on the basis of positive-negative perfectionism, the results showed negative perfectionism is more correlated with features of obsessive-compulsive and eating disorder attitudes. This part of the findings is consistent with previous research on clinical samples of eating disorders (37-39), OCD (17, 18), non-clinical samples of eating disorders (35, 40-42), and obsessive compulsive features (16, 22, 35, 42). In general, the overall level of perfectionism has been shown to be highly correlated with obsessive-compulsive tendencies in non-clinical studies, yet stronger relationships have been reported between obsessive-compulsive characteristics with concern over mistakes and doubts about actions. However, as noted, the recent cases in introduction are considered as part of the disorder phenomenology. Two studies (17, 18) have examined perfectionism in people with OCD. In one study, only doubts about actions distinguished patients with OCD from patients with psychiatric disorder (18). In both studies, patients with OCD scored higher than normal controls on the subscales of concern over mistakes and doubts about actions. In the first study (17), patients with OCD scored a high mean on the subscale of socially prescribed perfectionism, although it should be noted that there is no evidence to support the hypothesis that socially prescribed perfectionism is higher in patients with OCD (19). The relationship between eating disorders and perfectionism is more complex, and has been considered as a maintenance factor of eating disorders according to the cognitive theory (39, 43). For example, it has been suggested that perfectionism and dichotomous thinking mediates extreme concern about body shape and weight with rigid dieting behavior (43); from phenomenological and theoretical perspectives, perfectionism is a necessary condition for the development of anorexia nervosa (44). It has been suggested that perfectionism leads the patient with anorexia nervosa to view successful dieting as success in the context of perceived broader failure (44). Therefore, in general, perfectionism is more related to obsessive-compulsive traits than eating disorders. It seems that fear of failure can launch a perfectionistic behavior which leads to checking, reassurance, and extreme concerns before making a decision. This research has two limitations. First, all data were collected using self-report measures; it is recommended that future researches replicate these results using other forms of data collection methods, such as peer report or behavioral observation. A second limitation was the fact that in addition to obsessive compulsive disorder and eating disorders, perfectionism was associated with some other disorders such as, social phobia, depression and obsessive-compulsive personality disorder (19). In the present study it was not possible to compare perfectionism with these psychological phenomena, thus, it is suggested for perfectionism dimensions to be also explored in clinical and non-clinical disorders that is cleared its contribution in explaining of other pathological aspects. The present findings suggest the need for differential diagnosis of obsessive-compulsive disorder from eating disorders. Also, treatment strategies should include attention to dimensions of perfectionism, especially negative perfectionism.

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Authors' Contributions

Hassan Yahghoubi conceived and designed the evalu-

ation, collected the clinical data and performed the statistical analysis. Ali Mohammadzadeh drafted the manuscript and revised it critically for important intellectual content. Both authors read and approve the final manuscript.

Declaration of Interest

Non-declared.

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