Mediation effects of positive and negative affects on the relationship between perfectionism and physical health

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Abstract

This study examined the mediation effects of positive and negative affects on the relationship between dimensions of perfectionism with physical health in a sample of general population. 234 volunteers (131 women, 103 men) completed the Tehran Multidimensional Perfectionism Scale (TMPS), Positive and Negative Affect Schedule (PANAS) and the Physical Health Inventory (PHI). The results revealed that positive and negative affects mediated the relationship between self-oriented and other-oriented perfectionism with physical health in opposite directions. It was concluded that the mediation effect of negative affect was greater than the mediation effect of positive affect.

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1. Introduction

Identifying psychological variables, specially personality variables associated with physical health and ill has ever been noted by researchers in the fields of psychology and health. Perfectionism is one of the variables affecting health and ill conditions. Studies on the relation between perfectionism and mental health have a long history, and numerous studies have confirmed the existence of such a relationship. For instance, perfectionism is associated with mood disorders (Flett, Besser, Hewitt, & Davis, 2007; Sherry, Law, Hewitt, Flett, & Besser, 2008), anxiety disorders (Laurenti, Bruch, & Haase, 2008; Stoebber, Feast, & Hayward, 2009), suicidal ideas (Rusmassen, O’Connor, & Brodie, 2008), obsessive-compulsive disorder (Kagan, Cakir, Lihan, & Kandemir, 2010; Moretz, & McKay, 2009), eating disorder (Boone, Soenence, Braet, & Goossens, 2010; Soares, Maia, Pereira, Gomes, Marques et al., 2009; Welch, Miller, Ghaderi, & Vaillancourt, 2009) and personality disorders (Besharat, 2007). However, the relationship between perfectionism and physical health has recently been considered by the researchers. Studies have shown that perfectionism is related to physical health and ill (Ofoghi & Besharat, 2010), recurrent pain (Hadhistavropoulos, Dash, Hadhistavropoulos, & Sullivan, 2006), sleep disorders (Azevedo, Bos, Soares, Marques, Pereira et al., 2010), headache (Bottos, & Dewey, 2004), physical pain (Dittner, Rimes, & Thorpe, 2010), and chronic fatigue syndrome (Deary, & Chalder, 2010).

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Perfectionism as a personality trait is a multidimensional structure (Frost, Marten, Lahart, & Rosenblate, 1990; Hewitt, & Flett, 1991) which is characterized by the effort for faultlessness and establishment of excellent criteria for performance along with quite critical evaluation of personal behavior and excessive sensitivity with regard to mistakes (Flett, & Hewitt, 2002; Frost et al., 1990; Rice & Preusser, 2002). Frost et al. Multidimensional Perfectionism Scale (MPS-F, 1990) distinguishes six dimensions of perfectionism: concern over mistakes, personal standards, parental expectations, parental criticism, doubts about actions, and organization. Among these dimensions, concern over mistakes and doubt about actions are related to disease factors more than others. Hewitt and Flett Multidimensional Perfectionism Scale (MPS-H; 1991; Flett, & Hewitt, 2002) distinguishes three dimensions: self-oriented perfectionism (setting excellent criteria for oneself, and judging oneself based on these criteria, as well as a strong motivation for reaching perfection), other-oriented perfectionism (setting excellent criteria for others and judging them based on these criteria), and socially prescribed perfectionism (the belief that others set irrational criteria for individual behavior). In general, self-oriented perfectionism is rather related to health factors and socially prescribed perfectionism with disease factors. Findings related to other-oriented perfectionism are contradictory.

Some studies have been conducted on the relation between perfectionism and physical health and ill. Using Tehran Multidimensional Perfectionism Scale (TMPS; Besharat, 2009), Ofoghi and besharat (2010) showed that self-oriented perfectionism is in a positive relation with physical health and improves physical health through stimulating personal motivations and enhancing mental and physical abilities. In their study, socially prescribed perfectionism due to its confrontation with high expectations on the side of others is in a negative relation with mental health and other-oriented perfectionism is only in a positive relation with medical referrals. Hadjistavropoulos et al. (2006) confirmed that those who feel that others impose unrealistic expectations on them (socially prescribed perfectionism), experience a higher level of recurrent pain. Molnar et al. (2006) in a sample of general population showed that self-oriented perfectionism is related to better physical health and socially prescribed perfectionism has a positive and significant relation with fatigue and low energy.

With regard to the possible relationship between the dimensions of perfectionism and physical health-ill, the main question is that what variables have a mediating effect on this relationship. Recent studies have provided evidence of a relation between perfectionism and affect (Flett et al., 2007; Sherry et al., 2008). Macedo et al. (2009) reported a significant relationship between socially prescribed perfectionism with negative affect and depression. Sagar and Stoebber (2009) showed that there is a relation between maladaptive dimension of perfectionism including concern over mistakes and parental pressure with negative affect following failure. Self-oriented perfectionism, on the contrary, is associated with higher levels of positive affect (Molnar et al., 2006). On the other hand, studies have confirmed the relationship between affect and physical health. Some studies have demonstrated that negative affect is associated with health complaints and symptoms of disease (Butler, Whalen, Jamner, 2009). The findings regarding the relation between positive affect and physical health were contradictory. While some researchers have not reported a relationship between positive affect and health (Watson, & Pennebaker, 1989), some others have reported a significant relationship (Dockray & Steptoe, 2010).

Based on the existing evidence, it may be assumed that dimensions of perfectionism probably affect physical health and ill by mediating effect of positive and negative affects (Molnar et al., 2006). According the results of previous studies, the relation between self-oriented and socially prescribed perfectionism with physical health can be determined as positive and negative, respectively. The relation between other-oriented perfectionism and physical health and also, with positive and negative affect can not be predicted due to the lack of empirical evidence, although it will be examined in this study.
2. Method

2.1. Participants and procedure

The statistical population in this study was general population in Tehran. Two hundred and fifty four men and women from Tehran voluntarily participated in this study. The including and excluding criteria for participation in this study were: A) the volunteer’s consent for participation in the study; B) Having at least a diploma degree; C) an age range from 20 to 50; and D) not taking medication for a mental or physical disease at the time of the study. Eighteen participants were omitted from the statistical analyses due to incomplete answers to scales and, therefore, the study sample was reduced to 234 individuals (131 women, \( M_{\text{age}} = 32 \text{ years}, \text{age range: 23-45 years} \), and 103 men, \( M_{\text{age}} = 35 \text{ years}, \text{age range: 24-49 years} \)).

2.2. Measures

**Tehran Multidimensional Perfectionism Scale (TMPS; Besharat, 2009)** - The TMPS is a 30-item scale which evaluates three dimensions of self-oriented, other-oriented and socially prescribed perfectionism on a five-point Likert-type scale from 1 to 5. The minimum and maximum scores of the subject under the three dimensions of the test will be 0 and 50, respectively. Psychometric properties of the TMPS have been examined and confirmed in several studies (e.g., Besharat, 2009).

**Positive and Negative Affect Schedule (PANAS; Watson, Clarke, & Tellegen, 1988)** - This is a 20-item scale comprising of 10 positive and 10 negative affects. The PANAS evaluates the two subscales of positive and negative affects as two orthogonal dimensions with five-point Likert-type scale from 1 to 5. The minimum and maximum scores of the subject in each of the subscales will be 10 and 50, respectively. Adequate psychometric properties of the PANAS have been reported (Watson et al., 1988).

**Physical Health Inventory (PHI)** - This scale consists of 24 questions and evaluates four factors of physical health including symptoms, perceived health, number of visits to a physician, number of days of hospitalization. The number of symptoms is assessed by 21 questions related to sleep disorders, asthma, anxiety, pains and suffering, fatigue and the effect of these problems on the daily function (Molnar et al., 2006). Perceived health in the physical health scale is evaluated by one question in which the subject determines his health condition in comparison to his peers by a four-point Likert-type scales from 1 (weak) to 4 (excellent). Physical disease is examined by two questions: number of visits to a physician and number of days of hospitalization due to disease over the last two years. Each of these two questions are scored based on a seven-point Likert-type scale from 1 (for no visits or hospitalization) to 7 (for over 15 visits or hospitalization).

3. Results

Pearson correlation test suggested that self-oriented perfectionism has a positive correlation with positive affect and physical health and negative correlation with negative affect. Socially prescribed perfectionism, on the contrary, has a negative correlation with positive affect and physical health and a significant positive correlation with negative affect. Other-oriented perfectionism had no significant correlation with any of these factors. These results clarify and confirm the predictions of this study with regard to the relation between perfectionism and physical health.
Table 1. Pearson correlation coefficients between dimensions of perfectionism, positive affect, negative affect, and physical health indices

<table>
<thead>
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<th>variables</th>
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<td>Self-oriented perfectionism</td>
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<td>Other-oriented perfectionism</td>
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<td>Socially prescribed perfectionism</td>
<td>.51**</td>
<td>.43**</td>
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<td>Positive affect</td>
<td>.29**</td>
<td>.07</td>
<td>.8**</td>
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<td>Negative affect</td>
<td>.14*</td>
<td>.05</td>
<td>.10</td>
<td>.35**</td>
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<tr>
<td>Physical health</td>
<td>.17**</td>
<td>.07</td>
<td>.37**</td>
<td>.55**</td>
<td>.58**</td>
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*p < .05, **p < .01

Then, in order to measure and compare the mediating role of positive and negative affects on the relation between perfectionism and physical health, two separate conceptual models were prepared and the recommended models were tested based on path analysis method.

Model A: the mediating role of negative affect: direct coefficients between physical health and self-oriented perfectionism (-0.53) and socially prescribed perfectionism (-0.55) are statistically significant and insignificant in case of other-oriented perfectionism (-0.1). Path coefficients among the three dimensions of perfectionism and negative affect are also positive and statistically significant. The path coefficients of negative affect and physical health (-0.5) are significant and suggest that as negative affect increases, physical health decreases. In order to study the mediating role of negative affect on model A, direct and indirect effects of perfectionism on physical health were assessed and it was found out that the effects of the two dimensions of self-oriented (0.76) and socially prescribed (-1.42) perfectionism are greater than those of indirect effects (due to negative affect, respectively 0.62 and -0.21). Thus, it can be concluded that negative affect do not have a strong mediating role in the two dimensions of self-oriented and socially prescribed perfectionism. Whereas the indirect effect of other-oriented perfectionism (-0.57) is larger than its direct effect (-0.27) on physical health and suggests the strong mediating role of negative affect on these two variables. In fact, the effect of other-oriented perfectionism on physical health is exerted through negative affect.

Model B: the mediating role of positive affect: in model B also direct coefficients between physical health and self-oriented (-0.79) and socially prescribed perfectionism (-0.44) are significant and in case of other-oriented perfectionism (0.02) are insignificant. Direct coefficients among all three dimensions of perfectionism and positive affect are also significant. The higher the value of other-oriented and socially prescribed perfectionism, the lower the positive affect will be. Whereas, in case of self-oriented perfectionism, the higher the value of self-oriented perfectionism, the higher the positive affect will be. Comparing path coefficients of positive and negative affect with physical health indicates that the value of these coefficients is higher for negative affect (-0.50) rather than positive affect (0.39). Comparing the direct and indirect effects of the dimensions of perfectionism on physical health with the mediation of positive affect indicates that in this model the indirect effect of self-oriented perfectionism (0.71) and other-oriented perfectionism (0.33) is more than their direct effect (respectively 0.67 and 0.02). But in case of socially prescribed perfectionism, the direct effect (-1.16) is greater than the indirect effect (-0.44). Therefore, positive affect can have a rather strong mediating role between the self-oriented and other-oriented dimensions of perfectionism. But in case of the socially prescribed dimension of perfectionism, it does not play such a role.

4. Discussions

The results of the study, consistent with previous findings (Hadjistavropoulos et al., 2006; Macedo et al., 2009; Molnar et al., 2006; Ofoghi & Besharat, 2010), indicated that the relation between self-oriented and socially prescribed perfectionism with physical health was positive and negative, respectively. Other-oriented perfectionism did not have a significant relationship with physical health. On the other hand, the results of the study suggested that other-oriented perfectionism affects physical health factors through both positive and negative affect, self-oriented perfectionism affects physical health factors only through positive affect, and neither of positive or negative affect had a significant mediating role in the relation between socially prescribed perfectionism and physical health. Self-
oriented perfectionism unifies psychological dynamism and physical abilities in order to achieve excellent goals. This psycho-physical readiness confirms the positive relation between perfectionism and physical health (Molnar et al., 2006; Ofoghi & Besharat, 2010).

Socially prescribed perfectionism constantly puts the individual under pressure and stress and as a source of negative motivation diminishes physical abilities. This unpleasant condition justifies the relation between socially prescribed perfectionism and physical health (Hadjistavropoulos et al., 2006; Macedo et al., 2009; Molnar et al., 2006; Ofoghi & Besharat, 2010).

In the other-oriented perfectionism the massive burden of perfectionism has been transferred from the individual to the other. Perhaps, that is why the effect of this kind of perfectionism, either in a positive or negative direction, is weaker than the other two types of perfectionism. The findings of this study about other-oriented perfectionism are congruent with the results of the previous studies (Molnar et al., 2006; Ofoghi & Besharat, 2010). This study, consistent with previous studies (Molnar et al., 2006; Saboonchi & Lundh, 2003), shows that other-oriented perfectionism influences physical health just through positive and negative affect.

Since this is the first time that such a study has been conducted in Iran, it needs to be repeated in case of various samples specially the physically diseased and more empirical confirmation should be acquired. Besides, the model of the study, the sample under study, tools and methods employed in this study pose limitations which make it difficult to draw definite conclusions from its results and this must be taken into consideration.

References


