

Psychometric Properties of Multidimensional Perfectionism Scale (MPS)

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ABSTRACT

Objective: In this study, psychometric qualities of multidimensional perfectionism scale (MPS) were evaluated.

Methods: Persian version of perfectionism inventory was completed by 48 adults (24 females and 24 males). The sample was selected by cluster random sampling from Sarcheshmeh adult inhabitants. Reliability of the scale was assessed by calculating Cronbach's alpha coefficient. Then 260 adults completed perfectionism inventory. Factor analysis was applied to data as an index of construct validity.

Results: Cronbach's alpha coefficient indicated that perfectionism inventory could demonstrate an acceptable reliability. In addition, investigation showed a significant validity. Factor analysis indicated that this measure has one factor in line with other databases in this regard.

Conclusion: MPS has an acceptable reliability and validity and showed acceptable psychometric qualities. However, in this research only one of three factors (self-oriented perfectionism) that constructors proposed (self-oriented, other-oriented and socially prescribed perfectionism) was validated.

1. Introduction

Perfectionism is characterized by endeavor for flawlessness and setting of excessively high standards for performance with a tendency for overly critical evaluations of one's behavior (Flett & Hewitt, 2002). Moreover, perfectionism explained as a structure in which it causes the person to experience negative feelings as a consequence and setting goals that are out of range (Frost, Marten, Lahart & Rosenblate, 1990). It is characterized by a striving to be perfect and avoid mistakes. Perfectionists usually compare their values with inaccessible goals (Horney, 1950).

Stoeber and Otto (2006) provide a comprehensive review of the perfectionism literature to date, and pretend that two different forms of perfectionism was found by researchers, the first one involves positive strivings and the second includes perfectionistic concerns and to understand the potential positive effects of perfectionistic striving one must remove variance associated with perfectionistic concerns. They suggest when the perfectionist is not overly concerned with mistakes and negative evaluation perfectionism can have positive effects.

Most studies show that two aspects of perfectionism are completely distinguished (Stumpf & Parker, 2000; Sudarth & Slaney, 2001): positive or normal perfectionism

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and neurotic or negative perfectionism. The former includes those aspects of perfectionism related to perfectionism challenges such as having high-level personal standards and trying to be the best. The latter includes those aspects, which are related to prefectural worries such as worries about making mistakes and uncertainty also fear of others judgments and disharmony of expectations and results (e.g. Stoeber, Harris, & Moon, 2007; Stoeber, Otto, & Pescheck, 2007). Therefore, we can expect different relations between the two aspects of perfectionism and psychological well-being and distress.

Among several measures of perfectionism, the most widely used and extensively researched is the Multidimensional Perfectionism Scale (Hewitt & Flett, 1991). In This scale, the three forms of perfectionism including self-oriented (SOP), other-oriented (OOP) and socially prescribed (SPP) are distinguished. As stated by Hewitt and Flett (1991) socially prescribed perfectionism entails the need to attain standards or expectations prescribed by significant others and other-oriented perfectionism identified with the super expectations from others, while self-oriented perfectionism involves stringently evaluating oneself and setting high standards. Various other measures of perfectionism have been developed.

People with dysfunctional perfectionism are more likely to avoid situations that require them trying to meet his or her perfectionist standards. They put off starting a task because the desire to complete it perfectly will make it hard or unpleasant and prematurely ending tasks because perfectionist standards are unlikely to be met (Shafran & Mansell, 2001). Some researchers argue for three subgroups (Rice & Ashby, 2007; Rice, Ashby, & Gilman, 2011), while others argue for four (Boone, Soenens, Braet, & Goossens, 2010; Wang, Slaney, & Rice, 2007). However, strong disagreements exist on the number of subgroups derivable from perfectionism tests.

The construct of perfectionism traditionally considered as being both causal and maintaining factors of a variety of psychological conditions (Shafran & Mansell, 2001). Accordingly, much debate has arisen regarding the dimensionality of perfectionism particularly as these are related to certain disorders. Generally, two higher order dimensions have been focused on adaptive and pathological (Frost, Marten, Lahart, & Rosenblate, 1990). The adaptive form of perfectionism that is also called benign typically involves high self-imposed, personal standards (PS), while the latter (also called problematic) includes self-critical evaluative concerns (EC) involving excessive concern over mistakes and doubts about actions (Dunkley, Blankstein, Masheb, & Grilo, 2006).

Importance of distinguishing between these two dimensions has been largely supported by factor analytic studies (Bieling, Israeli, & Antony, 2004; Dunkley, Zuroff, & Blankstein, 2003; Hill et al., 2004) resulting in popularity of using these measures. Mainly, researchers use relevant subscales from the Frost et al. (1990) Multidimensional Perfectionism Scale (FMPS) or the Hewitt, Flett, Turnbull-Donovan, and Mikail (1991) Multidimensional Perfectionism Scale (HMPS) which proves that these measures are closely related (Frost, Heimberg, Holt, Mattia, & Neubauer, 1993).

According to Burns (1980), perfectionism is a unidimensional construct. However, recent views have strongly regarded perfectionism as multidimensional in nature (Terry-Short, Owens, Slade, & Dewey, 1995). The dimension of perfectionistic strivings in compasses perfectionism facets related to perfectionistic personal standards and a self-oriented striving for perfection. This dimension has been shown to be associated with positive characteristics, processes, and outcomes such as conscientiousness, adaptive coping, and positive affect as well as higher levels of psychological adjustment and subjective well-being (Stoeber & Chills, 2012).

Applied measures of perfectionism in Iran have not evaluated multidimensional construct of perfectionism involving self-oriented, other-oriented and socially-oriented types. The present study aims to assessing the validation and investigating the components of MPS in Iran.

2. Methods

Participants

The sample of this study was 308 adults who inhabited in Sarcheshmeh town in 2012. The total sample was selected with cluster random sampling method. Two alleys from each 15 avenues of this city were selected. Overall, 30 alleys were determined and the adults of these alleys were investigated. The criteria were not to have a history of psychological disorder and experiencing psychotherapy. The total sample after screening the complete questioners consisted of 308 subjects including 158 females and 150 males.

Measures

Demographic Inventory

In this inventory, some characteristics of participants such as age, gender, marital state, a history of psychological disorder and psychotherapy were investigated.

The Multidimensional Perfectionism Scale (MPS)

Hewitt and Flett developed this measure in 1991. The MPS consists of three subscales that each one includes 15 items, rated on a five-point Likert scale from 0 to 5 (strongly disagree, disagree, neither agree nor disagree, agree and strongly agree). Self-oriented perfectionism subscale is identified with tendency to set high and unrealistic standards and focus on deficits and faults in accompany with detailed self-supervisory.

This component of perfectionism is a motivational aspect. Other-oriented perfectionism subscale is about extremist expectations and criticized evaluations of others, generally inclined to enmity and blame of others. The third subscale is socially prescribed perfectionism that entails the need to satisfying expectations of important persons. Many researchers studied the reliability and validity of MPS in clinical and general populations. Alpha coefficient range was from 0.74 to 0.89 in different studies. Samples of this items are "I strive to be as perfect as I can be" for self-oriented perfectionism subscale, "Everything that others do must be of top-notch quality" for other-oriented perfectionism subscale and "The people around me expect me to succeed at everything I do" for socially prescribed perfectionism subscale (Hewitt et al., 1991).

To use this scale in Iran, three psychologists with a good command of English translated the questionnaire to Persian. Afterwards, two English specialists back translated it into English. Then five psychologists with Ph.D. degrees to ensure equivalence of meaning reviewed the questionnaire. Ten Sarcheshmeh inhabitant adults were requested to read items and state the ambiguity or unintelligibility. To examine the content validity of the scale, it was reviewed and approved by two professional editors and 48 adults of Sarcheshmeh residents. They completed the questionnaire thereby the Cronbach's alpha was obtained as 0.71.

Participants were asked to complete the MPS and demographic questionnaires. A summary of the project was explained for each participant, and then they were asked to complete the questionnaires, emphasizing the fact that their name or other private data would be kept

confidential. 158 females and 150 males completed the demographic questionnaire, MPS and Kubassa Hardiness Personality Inventory.

Kobasa Hardiness Personality Inventory

We applied MPS with Kobasa Hardiness Personality Inventory. This questionnaire explores hardiness personality, A personality character which is identified with activity and responsibility for goals and being able to overcome life difficulties and has significant correlations with perfectionism (Lambert, 2007). Ghorbani (1993) investigated reliability and validity of this measure in Iran. Reliability and validity coefficient was 0.75 and the measure showed acceptable psychometric qualities. The hardiness personality inventory consists of three subscales including commitment (16 items), control (17 items) and challenge (17 items) which rated on a four-point scale (completely false to completely true) with 39 items reversely scored.

3. Results

308 subjects participated in this study including 150 males (48%) and 158 females (52%). The age range was 18- 60 years with the mean age of 38.85 years. Educational status was 12.00% below high-school diploma (some high-school), 40.60% high-school diploma, 17.20% Associate Degree, 26.30% bachelor's degree and 2.60% master's degree.

Validity

Two models of factor analysis were applied to determine the construct of MPS and to find out factors that would load on three subscales of the original questionnaire. First, we tested the confirmatory factor analysis and 45 items loaded on three factors with a total explained variance of 25.19%. Table 1 refers to component transformation matrix of this method.

For exploring items and investigating measures we used the second model according to the KMO criterion, the sample size was sufficient ($KMO > 0.70$, $\alpha < 0.01$), and 15 factors were derived based on Eigen values > 1 . The

Table 1. Component correlation matrix of MPS.

Component	1	2	3
1	0.797	0.489	0.354
2	0.074	-0.661	0.747
3	-0.599	0.569	0.563

Extraction method: Principal component analysis.

Rotation Method: Varimax with Kaiser normalization.

Table 2. Factor loading of each items.

Items	Factor 1	Items	Factor 1
2	0.489	26	0.545
3	0.542	27	0.587
6	0.580	28	0.537
7	0.644	29	0.457
8	0.417	31	0.583
10	0.517	32	0.514
11	0.489	33	0.623
14	0.623	34	0.630
15	0.702	35	0.436
16	0.536	36	0.655
17	0.674	37	0.539
18	0.476	40	0.480
20	0.593	42	0.516
22	0.515	43	0.609
23	0.457		

results from an exploratory factor analysis (i.e. principal component analysis, Oblimin rotation) indicated that the 45 items loaded on 15 underlying factors (factor loading > 0.3) with a total explained variance of 61.02%. According to the new debates at unidimensional structure of perfectionism and wide cultural differences between the Iranian and western cultures, exploratory factor analysis was used to determine the probability of cultural effects. In both factor analyses, 45 items were subjected to a principal component analysis, followed by Varimax and Obliman rotation. Some items were deleted in order to get to a good constructed measure. 29 items were kept and the construct was determined by one factor rather than three. Cronbach's alpha (0.75) increased to 0.80 after removing 16 items. Factor loading of each item is demonstrated in Table 2.

Reliability

For the final form of measure with four-week interval within 42 subjects, we obtained a significant ($P < 0.01$) test-retest reliability coefficient that was 0.84. Cronbach's alpha was 0.80 and perfectionism scores were between 35-108 with an average score that was 80. MPS with Kobasa Hardiness Personality Inventory were used to assess convergent reliability. As it is shown in Table 3, correlation between these scores was 0.02 that was significant ($P < 0.05$). This finding is in regard to current studies that suppose correlations between perfectionism and hardiness personality (Lambert, 2007).

Univariate and multivariate analyses of covariance were used to determine age and sex differences. There was not a significant difference between them with total MPS scores ($P < 0.01$).

Table 3. Correlation between perfectionism score and hardiness score.

Variable	Pearson correlation	Sig. (2-tailed)	N
Perfectionism score	1	0.020	296
Hardiness score	0.137*	0.020	288

* Correlation is significant at the 0.05 level (2-tailed).

4. Discussion

The present study examined the psychometric qualities of multidimensional perfectionism scale, which was adapted for use with a sample of Iranian adults. Findings from this study support the view that MPS is a highly reliable instrument with good construct validity, although; future researches will have to account to use that in other social groups. The result showed just one reliable factor and measure was revised as an Iranian norm questionnaire and 29 items among 45 were survived.

It seems the pattern of factor structure of the scale differs between Iranian and western participants that reflect probable cultural differences of the two societies. Our results are compatible with the works of Shafran et al. (2002) which supposed unidimensionality of perfectionism.

Recent studies of Hewitt and colleagues (2003) indicate perfectionism character as a multidimensional construct but new claims about unidimensionality of this structure argued differently. The pioneer approach is essentially an emphasis on self-oriented perfectionistic attitudes that was the focus of research in the perfectionism field prior to the 1990s. In addition to self-oriented perfectionism that included behavioral, motivational, and cognitive components, Hewitt & Flett (1991) outlined two interpersonal dimensions of perfectionism known as other-oriented perfectionism and socially prescribed perfectionism. Shafran et al. (2002) pretend that the interpersonal dimensions described by Hewitt & Flett (1991) should be regarded, at best, as mere correlates of perfectionism, and that they are not central to clinical perfectionism or to the perfectionism construct as defined by numerous authors (e.g. Burns, 1980). They suggested that the additional dimensions do not assess perfectionism per se, but assess related constructs.

The perception that others have unrealistically high standards for the individual and that they exert pressure on them to be perfect ('socially-prescribed perfectionism') and beliefs about other people's standards ('other-oriented perfectionism') are both constructs that may be associated to perfectionism rather than integral elements of perfectionism. As Shafran et al. (2002) originally commented on multidimensional measures as leading to acceptance of perfectionism as multidimensional, and this "resulted in the concept (of perfectionism) being too readily equated with its method of measurement" (p. 776), we suggest further studies with similar scales and different population and samples.

The present research had some unavoidable limitations. The questionnaires were self-reported. The MPS was designed to assess perfectionism character based on individual ways of thinking and behavior. It is one of the major limitations of the scale because it assesses personality character and attitude according to the behaviors. Moreover, generalization of the results to larger groups must be considered cautiously because all sample groups were adults who inhabited in Sarcheshmeh town.

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