

The Multidimensional Perfectionism Scale: Reliability, Validity, and Psychometric Properties in Psychiatric Samples

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Previous perfectionism measures have not been evaluated for use with clinical samples. This research examined the psychometric properties of the Multidimensional Perfectionism Scale (MPS), a 45-item measure of self-oriented, other-oriented, and socially prescribed perfectionism. Study 1 provided normative data for various patient groups and demonstrated the stability of the MPS subscales in psychiatric patients. Study 2 showed that the MPS subscales have adequate concurrent validity, are not influenced by response biases, and that the items require a Grade 6-7 reading level. Overall, the MPS appears to be a useful measure for individuals with various clinical disorders.

Historically, perfectionism has been associated with a variety of clinically relevant problems (e.g., Adler, 1956; Horney, 1950); however, only recently have researchers begun to investigate the role of perfectionism in such disorders as depression (Hewitt & Dyck, 1986; Hewitt & Flett, 1990a, 1991a; Hewitt, Mittelstaedt, & Flett, 1990), anxiety (Flett, Hewitt, & Dyck, 1989; Nekanda-Trepka, 1984), eating disorders (Laessle, Kittl, Fichter, & Pirke, 1988), personality disorders (Broday, 1988; Hewitt & Flett, 1991b; Wonderlich & Swift, 1990), chronic pain (Liebman, 1978; Van Houdenhove, 1986), and other types of severe maladjustment (Nerviano & Gross, 1983). It is evident from this research that individual differences in perfectionism are associated with numerous adjustment difficulties. It is also apparent that most research findings must be interpreted with caution because of problems inherent in past perfectionism measures. These measures are limited in that they tend to be unidimensional and lack developmental sophistication (e.g., Burns, 1983). Moreover, the association between perfectionism and possible response biases (e.g., social desirability) has not been examined. Most important, the appropriateness of these scales in clinical settings has seldom been demonstrated (see Hewitt & Flett, 1991b).

Recently, we used the construct validation approach to develop the Multidimensional Perfectionism Scale (MPS; Hewitt

& Flett, 1989; 1991b). The MPS is a 45-item scale that assesses self-oriented perfectionism (i.e., unrealistic standards and perfectionistic motivation for the self), other-oriented perfectionism (i.e., unrealistic standards and perfectionistic motivations for others), and socially prescribed perfectionism (i.e., the belief that significant others expect oneself to be perfect). Factor analyses have confirmed that the MPS has three factors, representing self-oriented, other-oriented, and socially prescribed perfectionism, and that the factor structure is congruent across clinical and subclinical populations (Hewitt & Flett, 1991b). Additional research has confirmed that the MPS dimensions have an adequate degree of reliability and validity, and are relatively free from response biases (Hewitt & Flett, 1989; 1991a; 1991b).

The potential usefulness of the MPS has been demonstrated in various contexts. For instance, Hewitt and Flett (Study 5, 1991b) administered the MPS and the Millon Clinical Multiaxial Inventory (MCMI; Millon, 1983) to psychiatric patients. It was found that other-oriented perfectionism was associated significantly with several personality disorders from the dramatic cluster, perhaps reflecting a tendency for these personality disorders to encompass extrapunitive behavior. Socially prescribed perfectionism was also associated with several indexes, including the MCMI measure of borderline personality disorder. In another study (Hewitt & Flett, 1991a), we administered the MPS to a sample comprising unipolar depressed patients, anxiety disorder patients, and control subjects. This study revealed no group differences in other-oriented perfectionism; however, as expected, the depressed subjects were distinguished by a higher level of self-oriented perfectionism. It was also found that both patient groups had higher levels of socially prescribed perfectionism than did the normal control group.

Although there is evidence of the instrument's potential usefulness, existing reliability and validity studies with the MPS

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have focused primarily on nonclinical samples. One aim of the present research was to examine the stability of the MPS subscales scores. Initial studies have indicated that the MPS subscales have adequate internal consistency in clinical samples. For example, the respective coefficients alpha were .88, .74, and .81 for self-oriented, other-oriented, and socially prescribed perfectionism in a sample of 263 psychiatric patients (Hewitt & Flett, 1991b). The alpha values obtained with a second sample consisting of 95 psychiatric patients were virtually identical (Hewitt & Flett, 1990b). Also, the MPS has acceptable levels of temporal stability in nonclinical samples (e.g., .88, .85, and .75 for self-oriented, other-oriented, and socially prescribed perfectionism, respectively; Hewitt & Flett, 1991b), but the stability of the scale in a clinical sample has not been examined. This issue is important because most research is predicated on the assumption that perfectionism in patients is a pervasive trait that is stable over time. Consequently, one goal of the present work was to assess temporal stability of perfectionism dimensions in a psychiatric sample.

A second goal of the present research was to provide normative data for psychiatric inpatients and outpatients. This information would be useful for clinicians in assessing whether a particular dimension of perfectionism is relatively high or low for patients when compared with established norms.

A third goal was to examine the concurrent validity of the MPS subscales in a clinical sample. Hewitt and Flett (1991b) have provided initial validity evidence in clinical and college samples. For instance, it was shown that there is a significant association between perfectionism dimensions and clinician ratings, and several studies with college students have confirmed that the perfectionism dimensions are related significantly to conceptually similar constructs (see Hewitt & Flett, 1991b). Because these studies have been conducted primarily with college student samples, it is important to demonstrate the concurrent validity of the MPS subscales in a clinical sample. Similarly, no attempt has been made to assess whether the MPS subscales are contaminated by response biases in clinical patients (e.g., social desirability). Issues pertaining to validity and social desirability were addressed in Study 2.

Finally, as mentioned, the MPS was developed initially with a college student population, and it is important to determine the suitability of the instrument when administered to patients. Toward this goal, Study 2 also included an assessment of the reading level required to understand the MPS.

Study 1

Method

Subjects

Several samples were included in Study 1. The first comprised 387 patients (194 men and 193 women) from the Brockville Psychiatric Hospital (223 outpatients and 164 inpatients). A subsample of 49 psychiatric outpatients (19 men and 30 women) with a mean age of 35.43 years was tested twice to assess the stability issue. Two other samples included for the normative data were a group of 34 male spouse abusers (mean age = 30.48 years) undergoing group treatment in a mental health center, and a sample of 399 chronic pain outpatients (213 men, 186 women; mean age = 44.50 years) who were assessed in a physical rehabilitation service prior to psychotherapy. Finally, a sample of 199 adults (100 men, 99 women) were recruited from a large urban and surrounding rural area. The mean age was 31.66 years. The ethnic and racial breakdown was not assessed for any of the samples.

Materials

Multidimensional Perfectionism Scale. The MPS (Hewitt & Flett, 1989; 1991b) is a 45-item measure of self-oriented perfectionism (e.g., *One of my goals is to be perfect in everything I do*), other-oriented perfectionism (e.g., *I have high expectations for the people who are important to me*), and socially prescribed perfectionism (e.g., *My family expects me to be perfect*). Subjects make 7 point ratings of their degree of agreement with the items. Several items are reverse-keyed, and the subscales are scored such that higher scores reflect greater perfectionism.

Procedure

The MPS was administered along with other clinical instruments either as a part of a clinical assessment or as part of a research project for the psychiatric and chronic pain patients (e.g., Hewitt & Flett, 1991a, 1991b). As for the test-retest subsample, all subjects completed the MPS along with other scales at one time point. These subjects were asked to complete the MPS approximately 3 months later (mean latency = 104 days, $SD = 24.25$). The community sample was tested through door-to-door recruitment in the Ottawa region.

Results and Discussion

The means and standard deviations of the MPS subscales for each of the samples are presented in Table 1. There were no differences as a function of psychiatric inpatient versus outpatient status; however, there were several gender differences in the psychiatric patient group. Men had higher other-oriented perfectionism scores than did women, $F(1, 385) = 13.68, p < .001$, but women had higher socially prescribed perfectionism scores, $F(1, 385) = 8.67, p < .01$. No gender differences were evident for the chronic pain patients. Men from the community sample were higher on other-oriented perfectionism than were women, $F(1, 197) = 8.96, p < .01$. These findings illustrate the importance of gender differences in levels of perfectionism.

Some insight into the nature of the various perfectionism dimensions in clinical samples is provided by inspection of the means in Table 1. Overall, it appears that higher levels of socially prescribed perfectionism are associated with more severe forms of psychopathology. Clearly, the highest socially prescribed perfectionism scores were reported by inpatients, both female and male. This is not unexpected, because socially prescribed perfectionism incorporates perceptions of disturbed social relations as well as elements of learned helplessness and amotivation (Hewitt & Flett, 1991b). Although socially prescribed perfectionism appeared to vary according to severity of dysfunction, the means obtained for self-oriented and other-oriented perfectionism did not appear to differ substantially across the various groups. These findings should be interpreted in the context of diathesis-stress models of perfectionism and self-regulation (e.g., Hewitt & Dyck, 1986; Kanfer & Hagerman, 1981). For example, it has been argued that certain perfectionism dimensions, such as self-oriented and other-oriented perfectionism, are related to severe forms of maladjustment only when combined with the presence of certain mediating variables such as life stress or maladaptive coping (see Hewitt & Dyck, 1986; Hewitt, Mittelstaedt, & Wollert, 1989). Thus, although overall mean levels of self-oriented and other-oriented perfectionism are relatively similar across groups, the norms reported in Table 1 may still be used to determine whether a

Table 1
Means and Standard Deviations of the Multidimensional Perfectionism Scale (MPS)
Subscales as a Function of Different Clinical Groups

Subjects	n	MPS subscale							
		Self		Other		Social			
		M	SD	M	SD	M	SD		
Psychiatric sample									
Men	194	69.21	16.75	58.27	12.31	56.59	14.04		
Inpatients	93	68.60	16.81	58.36	11.80	58.34	12.60		
Outpatients	101	69.76	16.76	58.19	12.82	55.17	15.15		
Women	193	70.98	19.29	53.18	14.68	61.36	17.04		
Inpatients	71	68.41	21.27	52.01	15.82	63.20	19.17		
Outpatients	122	72.48	17.96	53.85	13.99	60.30	15.66		
Chronic pain patients									
Men	213	67.72	17.81	56.32	11.75	54.00	11.00		
Women	186	69.94	16.19	56.70	10.18	54.00	12.10		
Spouse abusers	34	66.56	19.40	54.94	12.12	53.15	16.00		
Community sample									
Men	100	74.06	16.57	61.12	12.75	50.88	11.81		
Women	99	69.87	14.83	55.76	12.52	48.87	12.72		

Note. Higher scores reflect greater self-oriented, other-oriented, and socially prescribed perfectionism.

particular individual is characterized by excessively high or low levels of self-oriented and other-oriented perfectionism.

Additional findings with the test-retest data provided evidence to support the claim that the MPS dimensions represent traits with an adequate degree of stability. The respective corre-

lations over two points in time were .69, .66, and .60 for self-oriented, other-oriented, and socially prescribed perfectionism, respectively (all $ps < .05$). These results corroborate our previous findings that indicate that levels of perfectionism are relatively stable in subclinical populations (Hewitt & Flett, 1991b)

Table 2
Correlations Between Multidimensional Perfectionism Scale (MPS) Subscales
and Measures of Validity and Response Bias

Measure	MPS subscale								
	Self			Other			Social		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Validity measures									
ATSS									
High Self-Standards	.62*	.61*	.63*	.36	.49	.29	.56*	.47	.65*
Self Criticism	.47*	.22	.75*	.12	.20	.24	.58*	.62*	.53
Overgeneralization	.55*	.42	.76*	.20	.39	.25	.51*	.52*	.47
Perseveration	.50*	.45	.64*	.20	.48	.17	.56*	.69*	.41
BPS	.62*	.72*	.50	.40	.51*	.35	.69*	.60*	.77*
FMPS									
Concern Over Mistakes	.52*	.60*	.46	.18	.37	.10	.65*	.43	.77*
Personal Standards	.64*	.63*	.66*	.42*	.45	.43	.49*	.39	.60*
Parental Expectations	.47*	.46	.47	.40	.25	.59*	.67*	.44	.80*
Parental Criticism	.38	.43	.33	.22	.33	.25	.47*	.49	.44
Doubts About Actions	.24	.10	.36	.01	.14	.08	.48*	.39	.54
Organization	.15	.33	.03	.04	.20	.09	.30	.16	.43
Response-bias measures									
MCSDS	.02	.07	-.05	.00	.07	-.06	-.21	-.36	-.08
Other Deception	.13	.15	.10	-.03	.05	-.07	-.10	-.27	.03
Self-Deception	-.13	.11	-.31	.06	.06	.06	-.27	.02	-.45

Note. Using the Bonferroni procedure, correlations with $p < .001$ are significant. Correlations are based on the responses of 35 men and 25 women. ATSS = Attitude Toward Self Scale; BPS = Burns Perfectionism Scale; FMPS = Frost Multidimensional Perfectionism Scale; MCSDS = Marlowe-Crown Social Desirability.

* $p < .001$.

but suggest that socially prescribed perfectionism may vary somewhat as a function of clinical state or environmental circumstances (e.g., proximity to individuals with high expectations for the self).

Study 2

Concurrent validity refers to the degree to which a measure is associated with measures of similar content. In Study 2, it was expected that self-oriented perfectionism would be related to measures tapping personal standards such as the Burns Perfectionism Scale (Burns, 1983) and the High Self-Standards subscale of the Attitudes Toward Self Scale (Carver, LaVoie, Kuhl, & Ganellen, 1988). Similarly, it was expected that the Socially Prescribed Perfectionism subscale would be correlated with measures of perceived social standards, such as the Parental Expectations and Criticism subscales of a measure developed by Frost and associates (Frost, Marten, Lahart, & Rosenblate, 1990). These predictions were tested by administering the MPS and the measures outlined above to a sample of psychiatric patients.

Patients in this study also completed various measures of socially desirable responding. It is particularly important to examine the role of these response biases in perfectionism measures because the striving for perfection has been regarded as socially desirable (e.g., Hamachek, 1978; Prola, 1985). Finally, the readability of the MPS was assessed using various indexes of the minimum reading skill required to comprehend scale content.

Method

Subjects

The subjects were 60 psychiatric patients (35 men and 25 women) from the Brockville Psychiatric Hospital. The mean age of the sample was 38.13 years ($SD = 12.10$), and its mean years of education was 11.50 ($SD = 2.19$). There were 36 outpatients and 24 inpatients. The most frequent diagnoses, made according to the *Diagnostic and Statistical Manual of Mental Disorders* (3rd ed., rev.; *DSM-III-R*; American Psychiatric Association, 1987), were schizophrenia (23%), alcoholism (21%), depression (16%), and adjustment disorders (15%). The remainder of the sample included personality disorder and anxiety patients. Ethnic and racial background was not assessed.

Materials and Procedure

All subjects were interviewed and diagnosed according to *DSM-III-R* criteria by one of three staff psychiatrists. Subjects were then referred to the study, completed consent forms, and then completed the package of measures. Subjects were excluded if they had less than an 8th grade education, current psychotic symptoms, or organic impairment. All participants were paid \$10.

In addition to the MPS, subjects completed these measures in a random order:

Burns Perfectionism Scale (BPS). The BPS (Burns, 1983) is a 10-item measure of dysfunctional attitudes reflecting mainly self-oriented perfectionism. The scale is reliable and valid (Hewitt et al., 1989).

Frost Multidimensional Perfectionism Scale (FMPS). The FMPS is a 35-item measure of six perfectionism components: Concern Over Mistakes (e.g., *I should be upset if I make a mistake*), Personal Standards (e.g., *I have extremely high goals*), Parental Expectations (e.g., *My parents set very high standards for me*), Parental Criticism (e.g., *My parents never tried to understand my mistakes*), Doubts About Actions (e.g., *I usually have doubts about the simple everyday things I do*), and Organization (e.g., *I am a neat person*). Initial evidence with female college students indicates that the scale has adequate reliability and validity (Frost et al., 1990). Higher scores reflect greater perfectionism.

The Attitudes Toward Self Scale (ATSS). The revised ATSS is a 15-item measure of four dimensions of self-punitive tendencies, including High Self-Standards (e.g., *I set higher goals for myself than other people seem to*), Self-Criticism (e.g., *I get angry with myself if my efforts don't lead to the results I wanted*), Overgeneralization (e.g., *When even one thing goes wrong I begin to wonder if I can do well at anything at all*), and Perseveration (e.g., *If I fail at something, I think about that particular failure for a long time afterward*). Although the subscales have few items, acceptable reliability levels have been obtained in clinical samples (Carver et al., 1988).

Marlowe-Crowne Social Desirability Scale (MCSDS). The MCSDS is a 33-item measure of socially desirable responding (Crowne & Marlowe, 1960). Although there is some debate about the interpretation of scale scores (Edwards, 1990), the MCSDS is associated significantly with other measures assessing impression management tendencies (Paulhus, 1984), and it is widely regarded as one of the most well-known response-bias measures.

The Balanced Inventory of Desirable Responding (BIDR). The BIDR provides 20-item measures of impression management and self-deception (Paulhus, 1984). Whereas impression management involves conscious attempts to deceive others, self-deception involves denial of self-threatening thoughts. Numerous studies have demonstrated the validity and reliability of this instrument (see Linden, Paulhus, & Dobson, 1986).

Results and Discussion

Correlations were calculated between the MPS subscales and other measures for the total sample, men, and women. Because of the large number of correlations, the Bonferroni method to control for Type I errors was used. Thus, only correlations with significance levels of less than .001 were considered significant.

The findings revealed that Self-Oriented Perfectionism was related significantly to various measures of self-related behavior in the total sample. It can be seen in Table 2 that Self-Oriented Perfectionism correlated significantly with ATSS measures of High Self-Standards, Self-Criticism, Overgeneralization, and Perseveration. This subscale was also correlated with the BPS and the Concern Over Mistakes, Personal Standards, and Parental Expectations subscales of the FMPS.

Table 2 also reveals that for the total sample, Other-Oriented Perfectionism was correlated with only the Personal Standards subscale of the FMPS; however, there was a positive correlation between Other-Oriented Perfectionism and the BPS for men and the Parental Expectations subscale of the FMPS for women.

As expected, overall, Socially Prescribed Perfectionism was associated significantly with the FMPS subscales measuring Parental Expectations and Parental Criticism. Socially Prescribed Perfectionism was also correlated significantly with the remaining Self-Punitiveness and Perfectionism measures with the exception of the Organization subscale of the FMPS.

In general, adequate evidence of the subscales' validity was obtained. For instance, Self-Oriented Perfectionism was correlated significantly with all measures tapping high standards for the self. Similarly, Socially Prescribed Perfectionism was correlated with the FMPS measures of Parental Expectations and Parental Criticism overall.

As for response biases, it can be seen in Table 2 that none of the MPS subscales correlated with Impression Management or with Social Desirability. These results are consistent with those of Hewitt and Flett (1991b), suggesting that the MPS subscales are not confounded by efforts to present oneself positively.

Differences in the magnitude of correlations as a function of gender were tested, and only three correlations differed signifi-

cantly. The correlation between Self-Oriented Perfectionism and ATSS Self-Criticism was greater for women than for men, $z = 2.71$, $p < .01$, as was the correlation between Self-Oriented Perfectionism and ATSS Overgeneralization, $z = 1.98$, $p < .05$. Finally, the correlation between Socially Prescribed Perfectionism and FMPS Parental Expectations was greater for women than for men, $z = 2.26$, $p < .05$.

Flesch (1979) has described an index used to estimate skill level necessary for reading comprehension based on the length and number of sentences and number of syllables. The Fog Index (Gunning, 1952) is similar in assessing reading skill level of lower than Grade 5. The Readability Index score of the MPS was 83, which is equivalent to about the Grade 6 reading level (Flesch, 1979), and the Fog Index was calculated as equal to 7.1, which is approximately equivalent to Grade 7 reading level (Gunning, 1952). Past research with the MPS has excluded subjects with less than a Grade 8 level of education. The current results suggest that this criterion should ensure adequate comprehension of the items.

General Discussion

In summary, the purpose of this research was to examine the psychometric properties of the MPS in psychiatric patients. Taken together, the results represent further evidence that the MPS and its three subscales have adequate levels of reliability and validity in clinical samples. In addition to providing normative data for certain groups, Study 1 demonstrated that the three dimensions are relatively stable in psychiatric patients. Study 2 provided results indicating that the MPS subscales have adequate levels of concurrent validity. Moreover, it was established that the instrument requires reading skill of a Grade 6 or 7 level.

Overall, the results of the present studies combine with past research and observations to suggest that perfectionism is a construct with broad applications to clinical settings. It is hoped that the advent of valid and reliable measures such as the MPS will facilitate research and clinical work that focuses directly on perfectionism levels in psychopathology.

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