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The Clinical Perfectionism Questionnaire: Further Evidence for Two Factors

Capturing Perfectionistic Strivings and Concerns

Joachim Stoeber

University of Kent

Lavinia E. Damian

Babeş-Bolyai University

Author Note

Joachim Stoeber, School of Psychology, University of Kent; Lavinia E. Damian,

Department of Psychology, Babeş-Bolyai University

Correspondence concerning this article should be addressed to Joachim Stoeber, School of

Psychology, University of Kent, Canterbury, Kent CT2 7NP, United Kingdom. Phone: +44-

1227-824196. E-mail: J.Stoeber@kent.ac.uk

Abstract

The construct of clinical perfectionism, conceptualized as a one-dimensional construct (Shafran, Cooper, & Fairburn, 2003), has drawn considerable debate because of the associated critique of multidimensional perfectionism's relevance for clinical theory and research. Hence Dickie, Surgenor, Wilson, and McDowall's (2012) finding that the Clinical Perfectionism Questionnaire (CPQ), designed to measure clinical perfectionism, was two-factorial and thus multidimensional makes an important contribution to the debate. The present study aimed to replicate Dickie et al.'s finding examining the CPQ's factorial structure in 316 university students. In addition, the study examined the CPQ's convergent correlations with dispositional perfectionism, perfectionism cognitions, and perfectionistic self-presentation. CPQ total scores showed large-sized positive correlations with dispositional perfectionism and perfectionism cognitions demonstrating convergent validity. However, the study confirmed that the CPQ was two-factorial with Factor 1 mainly capturing perfectionistic strivings and Factor 2 mainly capturing perfectionistic concerns, thus questioning the CPQ's construct validity. Together with Dickie et al.'s findings, the present study's findings suggest that—if the CPQ is a valid measure of clinical perfectionism as conceptualized by Shafran et al. (2003)—the construct of clinical perfectionism and its dimensionality need to be reconsidered.

Keywords: clinical perfectionism; perfectionistic strivings; perfectionistic concerns; perfectionism cognitions; perfectionistic self-presentation; exploratory factor analysis

1. Introduction

1.1. Multidimensional perfectionism

Perfectionism is a personality disposition characterized by striving for flawlessness and setting exceedingly high standards of performance accompanied by overly critical evaluations of one's behavior (Frost, Marten, Lahart, & Rosenblate, 1990; Hewitt & Flett, 1991). Over the past 20 years, research has produced converging evidence that perfectionism has many facets and is best conceptualized as a multidimensional characteristic (see Enns & Cox, 2002, for a review). In particular, two main dimensions have been differentiated: *perfectionistic strivings* (also termed personal standards perfectionism) comprising perfectionistic personal standards and a self-oriented striving for perfection and *perfectionistic concerns* (also termed evaluative concerns perfectionism) comprising concern about making mistakes, feelings of discrepancy between one's standards and performance, and fears of negative evaluation and rejection by others if one fails to be perfect (see Stoeber & Otto, 2006, for a review).

1.2. Clinical perfectionism and the CPQ

Questioning the relevance of multidimensional perfectionism for clinical theory and practice, Shafran, Cooper, and Fairburn (2002) put forward the alternative concept of *clinical perfectionism* defined as "the overdependence of self-evaluation on the determined pursuit of personally demanding, self-imposed, standards in at least one highly salient domain, despite adverse consequences" (p. 778). Moreover, Shafran and colleagues stressed that clinical perfectionism was not multidimensional perfectionism (Shafran, Cooper, & Fairburn, 2003) in opposition to the widely accepted views that perfectionism is best conceptualized as multidimensional and that multidimensional conceptions of perfectionism also capture clinically relevant aspects of perfectionism (e.g., Hewitt, Flett, Besser, Sherry, & McGee, 2003).

To measure clinical perfectionism, Fairburn, Cooper, and Shafran (2003) developed the

12-item Clinical Perfectionism Questionnaire (CPQ; see Table 1). Yet, even though the CPQ has

been employed in clinical research for 10 years (e.g., Shafran, Lee, & Fairburn, 2004), little is

known about the CPQ's reliability and validity. Only recently studies have been published

examining the CPQ's reliability and validity. The findings are mixed. On the one hand, Steele,

O'Shea, Murdock, and Wade (2011) and Chang and Sanna (2012) found the CPQ total scores to

show good reliability (Cronbach's alphas = .83) and convergent validity displaying large-sized

positive correlations[1] with personal standards perfectionism, evaluative concerns perfectionism,

and the subscales of the Hewitt-Flett Multidimensional Perfectionism Scale (HF-MPS).

Moreover, the CPQ showed incremental validity predicting variance in depressive symptoms

above the variance explained by personal standards, evaluative concerns perfectionism, and the

HF-MPS subscales. On the other hand, Steele et al. (2013) found the CPQ total scores to show

only satisfactory reliability (alpha = .70). Furthermore, Dickie, Surgenor, Wilson, and McDowall

(2012) found Item 8 to show positive correlations with half of the CPQ items and negative

correlations with the other half. They also found an overall low item-total correlation for Item 8

and thus suggested excluding the item from the CPQ. More importantly, when employing

exploratory factor analysis (EFA) on the CPQ items, Dickie and colleagues found the CPQ to

show a two-factorial structure which—if clinical perfectionism is conceptualized as one-

dimensional, not multidimensional—raised questions about the CPQ's construct validity.

1.3. Limitations of Dickie et al.'s (2012) study

Dickie et al.'s (2012) study is the first to explore the factorial structure of the CPQ and thus

makes an important contribution to research on clinical perfectionism and the question of

whether clinical perfectionism is one- or multidimensional. However, the study had a number of

limitations. First, the study excluded Item 8 from the initial EFA (because of the low item-total

correlation) and Item 7 from the final EFA (because it displayed substantial loadings on both

factors). Consequently, the factorial structure of the CPQ including all 12 items still remained to be explored. Second, the study employed principal components analysis (PCA) as factor extraction method and only reported factor loadings for the two-factorial solution after orthogonal varimax rotation. However, PCA is not regarded a proper factor analysis, and orthogonal rotation—assuming uncorrelated factors—is not recommended if factors are expected to be correlated (e.g., Fabrigar, Wegener, MacCallum, & Strahan, 1999; Russell, 2002). Dickie et al. followed up their orthogonal rotation with an oblique rotation and found a small, but significant correlation ($r = .24$). However, the two subscales they derived from their factor solution showed a larger correlation ($r = .39$), and their EFA did not include Item 7 (which showed substantial loadings on both factors). Hence an EFA including all 12 CPQ items with oblique rotation could be expected to show higher factor correlations. Finally, Dickie et al. following the results of their final EFA computed two CPQ subscales (Subscale 1 comprising Items 1, 3, 6, 9, 10, and 11; Subscale 2 comprising Items 2, 4, 5, and 12) and investigated the subscales' convergent validity regarding perfectionistic strivings (personal standards) and perfectionistic concerns (concern over mistakes and doubts about actions). Subscale 1 showed a larger correlation with perfectionistic strivings than with perfectionistic concerns whereas Subscale 2 showed a larger correlation with perfectionistic concerns than with perfectionistic strivings. However, they did not investigate the convergent validity of the CPQ total scores. Hence the convergent validity of the CPQ remained to be further explored.

1.4. The present study

Replicability is an essential criterion for psychological research to ascertain that empirical findings are reliable and valid. Because the CPQ is the only questionnaire currently available to measure clinical perfectionism, it was important to replicate Dickie et al.'s (2012) finding of a two-factorial structure and further investigate the nature of the two factors. Furthermore, it was

important to examine the factorial structure of the CPQ and the convergent validity of the CPQ

total scores including all 12 items because—except for Dickie et al.'s study—all studies using

the CPQ to measure clinical perfectionism computed CPQ total scores based on responses to all

12 items. Consequently, the present study examined the factorial structure of the CPQ including

all 12 items and investigated the convergent validity of the CPQ total scores in relation to

measures capturing different aspects of dispositional perfectionism and multidimensional

perfectionism cognitions. Because in the limitation section of their article Dickie et al. discussed

the possibility of self-presentation influencing the CPQ scores, the present study also included

measures of perfectionistic self-presentation differentiating promotion-focused (perfectionistic

self-promotion) from prevention-focused self-presentation (nondisplay and nondisclosure of

imperfection) to examine the CPQ scores' relationships with perfectionistic self-presentation.

2. Method

2.1. Participants

A sample of 322 students (52 male, 270 female) was recruited at the first author's

university via the School of Psychology's Research Participation Scheme (RPS). Mean age of

students was 19.8 years ($SD = 4.0$). Students volunteered to participate in the study for RPS

credits or a raffle for £50 (~US $80) and completed all measures online using the School's

secure Qualtrics® system.

2.2. Measures

2.2.1. Clinical Perfectionism Questionnaire

Participants completed the CPQ following the questionnaire's original instructions which

(a) informed participants that the questionnaire was concerned with perfectionism, (b) defined

perfectionism as "trying to meet really high standards whether or not you actually succeed in

reaching them" (disregarding standards for eating, weight, or appearance), and (c) asked

participants to what degree the 12 items described them over the past month with participants'

responding on a scale from 1 (*not at all*) to 4 (*all of the time*).

2.2.2. Dispositional perfectionism

To measure dispositional perfectionism, we used the Frost Multidimensional Perfectionism

Scale (FMPS; Frost et al., 1990) and the Hewitt-Flett Multidimensional Perfectionism Scale (HF-

MPS; Hewitt & Flett, 1991). From the FMPS, we used the subscales capturing personal

standards (7 items of which 5 capture pure personal standards [i.e., personal standards without

contingent self-worth; DiBartolo, Frost, Chang, LaSota, & Grills, 2004]; e.g., "I have extremely

high goals"), concern over mistakes (9 items; "People will probably think less of me if I make a

mistake"), and doubts about actions (4 items; "Even when I do something very carefully, I often

feel that it is not quite right"). From the HF-MPS, we used the items from the self-oriented

perfectionism and socially prescribed perfectionism subscales that Campbell and Di Paula (2002)

used to capture perfectionistic striving (5 items; "I strive to be as perfect as I can be"),

importance of being perfect (5 items; "It is very important that I am perfect in everything I

attempt"), others' high standards (6 items; "People expect nothing less than perfection from

me"), and conditional acceptance (5 items; "Others will like me even if I don't excel at

everything," reverse-scored; for information on reliability and validity, see Stoeber & Childs,

2010; Stoeber, Kempe, & Keogh, 2008). Participants responded to the FMPS items on a scale

from 1 (*disagree*) to 5 (*agree*) and to the HF-MPS items on a scale from 1 (*totally disagree*) to 7

(*totally agree*).

2.2.3. Perfectionism cognitions

To measure perfectionism cognitions, we used the Multidimensional Perfectionism

Cognitions Inventory–English (MPCI-E; Stoeber, Kobori, & Tanno, 2010) capturing cognitions

regarding personal standards (5 items; e.g., "It's important to set high standards for myself"),

pursuit of perfection (5 items: "I can't be satisfied unless I make it perfect"), and concern over

mistakes (5 items; "I'll blame myself if I make a mistake"). Participants were told that the items

described thoughts about perfectionism that sometimes pop into people's heads and that they

should indicate how frequently, if at all, they had these thoughts in the past week responding on

a scale from 1 (*never*) to 4 (*always*).

2.2.4. Perfectionistic self-presentation

To measure perfectionistic self-presentation we used Yang and Stoeber's (2012) short form

of the Perfectionistic Self-Presentation Scale (PSPS; Hewitt, Flett, Sherry, et al., 2003) capturing

perfectionistic self-promotion (4 items; e.g., "I strive to look perfect to others"), nondisplay of

imperfection (4 items; "It would be awful if I made a fool of myself in front of others"), and

nondisclosure of perfection (4 items; "I should always keep my problems to myself").

Participants responded to all items on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*).

2.3. Preliminary analyses

Because multivariate outliers can severely distort the results of correlational and

multivariate analyses, we first examined participants' responses to the CPQ items for

multivariate outliers (see Tabachnick & Fidell, 2007, for details) and excluded two participants

(1 male, 1 female) with a Mahalanobis distance larger than $\chi^2(12) = 32.91$, $p < .001$. Then we

examined the scale scores for multivariate outliers and excluded four participants (all female)

with a Mahalanobis distance larger than $\chi^2(15) = 37.70$, $p < .001$. Thus our final sample

comprised 316 (51 male, 265 female) participants. Next, we examined whether the variance-

covariance matrices of male and female participants differed by computing Box's M tests with

gender as between-participants factor regarding the CPQ items and the scale scores (see again

Tabachnick & Fidell, 2007). Both tests were nonsignificant (CPQ items: Box's $M = 102.22$,

$F[78, 25845] = 1.19$, $p = .116$; scale scores: Box's $M = 139.23$, $F[120, 25453] = 1.03$, $p = .388$).

Consequently, all analyses were collapsed across gender. Finally, we examined the scores'

reliability. With Cronbach's alphas from .73 (CPQ total score) to .89 (concern over mistakes), all

scores displayed satisfactory reliability.

3. Results

3.1. Item analysis

Because Dickie et al. (2012) found that Item 8 showed a low item-total correlation, we first

examined each item's corrected item-total correlation (CITC), that is, the correlation of each

item with the sum of the remaining items (see Table 1). In line with Dickie et al.'s finding, Item

8 showed a near-zero CITC. Furthermore, Item 2 showed a near-zero CITC suggesting that

neither reverse-coded item made a significant contribution to the CPQ total score.[2]

3.2. Factor analyses

Next we conducted a first EFA (EFA 1) on the responses to the 12 CPQ items using PCA

and orthogonal rotation (varimax) as Dickie et al. (2012) did in their analyses. PCA resulted in

three eigenvalues > 1 (3.54, 1.96, 1.15). Because the eigenvalue > 1 rule is notorious for over-

extracting, we used *psych* (Revelle, 2013) to examine the eigenvalues with scree test, parallel

analysis, and Velicer' minimum average partial (MAP) test (see Zwick & Velicer, 1986). All

three tests suggested retaining only two factors. Hence we retained and rotated two factors that

after rotation explained 25.9% and 20.0% of variance in item responses. Because PCA is not

considered proper factor analysis and orthogonal rotation is not recommended when correlated

factors are expected (cf. 1.3), we conducted a second EFA (EFA 2) using principal axis factoring

and oblique rotation (promax) as recommended by Russell (2002). Whereas the factor loadings

in EFA 2 were similar to those in EFA 1 (see Table 1), EFA 2 arrived at two factors that showed

a significant positive correlation ($r = .37, p < .001$) and fewer substantial crossloadings

(|loadings| > .30 on both factors), which demonstrates the advantage of oblique over orthogonal

rotation when examining the CPQ's factorial structure.

Replicating Dickie et al.'s (2012) findings, Factor 1 (F1) showing the highest loadings for Items 1, 10, and 11 mainly captured perfectionistic strivings (e.g., pushing oneself really hard to meet one's goals) whereas Factor 2 (F2) showing the highest loadings for Items 4 and 5 mainly captured perfectionistic concerns (e.g., being afraid not to reach one's standards). In both EFAs, Items 7 and 8 showed substantial crossloadings. Moreover and more importantly, Item 8 displayed crossloadings with opposite signs on the two factors—a negative loading on F1 and a positive loading on F2—indicating that participants with high F1 scores (high perfectionistic strivings) tended to disagree that they had done "just enough" to get by, whereas participants with high F2 scores (high perfectionistic concerns) tended to agree.

3.3. Correlations

To examine the convergent validity of the CPQ total scores and further explore the differences between the two factors, we computed factor scores[3] and regarded the bivariate correlations of the CPQ total scores and F1 and F2 factor scores with the measures of dispositional perfectionism, perfectionism cognitions, and perfectionistic self-presentation. Because the EFA 2 factor scores were positively correlated, we additionally regarded partial correlations to control for the overlap between the scores (see Table 2).

As expected, CPQ total scores showed positive correlations with all measures of dispositional perfectionism and perfectionism cognitions (ranging from .42 to .61). In addition, they showed positive correlations with all forms of perfectionistic self-presentation (.24 to .46). The F1 factor scores from both EFAs showed the same pattern of bivariate correlations, but—when the partial correlations of the EFA 2 factor scores were regarded—F1 factor scores showed larger partial correlations with the measures of dispositional perfectionism and perfectionism cognitions indicative of perfectionistic strivings (e.g., personal standards) than

with those indicative of perfectionistic concerns (e.g., concern over mistakes). This confirmed that F1 mainly captured perfectionistic strivings (and perfectionistic concerns, albeit to a lesser degree). In contrast, F2 factor scores showed larger correlations with the measures indicative of perfectionistic concerns than with those indicative of perfectionistic strivings. In fact some partial correlations with the measures indicative of perfectionistic strivings were near zero (e.g., personal standards) or negative (pure personal standards, perfectionistic striving), indicating that F2 only captured perfectionistic concerns (but not perfectionistic strivings) once the overlap with F1 was controlled for. In addition, only the F1 scores were positively associated with promotion-focused self-presentation (perfectionistic self-promotion) whereas the F2 scores were associated with prevention-focused self-presentation (nondisplay and nondisclosure of imperfection).

4. Discussion

The aim of the present study was to further investigate the factorial structure of the Clinical Perfectionism Questionnaire (CPQ). In this, we aimed to replicate Dickie et al.'s (2012) finding that the CPQ is two-dimensional and, if so, further investigate the nature of the two factors. Moreover, we aimed to further investigate the convergent validity of the CPQ total scores and examine the CPQ scores' relationships with perfectionistic self-presentation. Replicating Dickie et al.'s finding, our analyses confirmed the CPQ's two-factorial structure with the first factor mainly capturing perfectionistic strivings and the second factor mainly capturing perfectionistic concerns. Furthermore, our analyses confirmed that the CPQ showed a complex factorial structure because 2 of the 12 CPQ items displayed substantial loadings on both factors, even when oblique rotation was employed to better fit simple structure. Regarding the convergent validity of the CPQ total scores, our findings confirmed that CPQ total scores showed large-sized positive correlations with other measures of dispositional perfectionism capturing perfectionistic strivings and perfectionistic concerns. In addition, CPQ total scores showed large-sized positive

correlations with past-week perfectionism cognitions. In contrast, the pattern of correlations with perfectionistic self-presentation was more diverse. Whereas CPQ total scores showed a large-sized positive correlation with perfectionistic self-promotion, they showed only medium-sized positive correlations with nondisplay and nondisclosure of imperfection.

Our findings confirmed previous findings that the CPQ total scores showed convergent validity with measures of dispositional perfectionism (e.g., Chang & Sanna, 2012; Steele et al., 2011). In addition, our finding of large-sized positive correlations between CPQ total scores and perfectionism cognitions provide further evidence for the CPQ's convergent validity. Other findings from our study, however, raised questions. First, the finding that the CPQ is two-factorial, replicating Dickie et al.'s (2012) finding, raised questions regarding the CPQ's construct validity. Shafran and colleagues conceptualized clinical perfectionism as a one-dimensional construct in differentiation to multidimensional conceptions of perfectionism, emphasizing that clinical perfectionism was not multidimensional (Shafran et al., 2003). If the CPQ is a valid measure of clinical perfectionism as conceptualized by Shafran and colleagues, it should not be multidimensional. Second, our findings raised questions regarding the two reverse-scored items (Items 2 and 8). Both showed near-zero item-total correlations. In addition, Item 8 showed a substantial positive loading on one factor and a substantial negative loading on the other factor. Consequently, Cronbach's alpha—which estimates reliability via internal consistency—improved when Items 2 and 8 were removed (see Footnote 2).

The present study has some limitations. First, like Dickie et al. (2012), the study used a sample of university students to investigate the CPQ's factorial structure. Consequently, future studies need to examine whether the present findings generalize to community and clinical samples. Second, to measure dispositional perfectionism, the present study did not use all subscales of the Frost Multidimensional Perfectionism Scale (Frost et al., 1990) ignoring parental

criticism, and it only used subscales derived from the Hewitt-Flett Multidimensional Perfectionism Questionnaire (Hewitt & Flett, 1991) instead of the full scales ignoring other-oriented perfectionism (cf. Stoeber, in press). Future studies may profit from using the complete scales including all subscales. In addition they may profit from including measures of the five-factor model of personality to examine how the two CPQ factors relate to neuroticism and conscientiousness (Rice, Ashby, & Slaney, 2007). Finally, the present study employed EFA to confirm Dickie et al.'s finding that the CPQ has a two-factorial structure. The reason why we did not employ confirmatory factor analysis (CFA) was that Dickie et al.'s final EFA included only 10 CPQ items. Hence, the factorial structure of the CPQ including all 12 items was still unexplored. Moreover, Dickie et al.'s EFAs suggested that the CPQ was factorially complex (i.e., a number of items showed substantial loadings on both factors). With factorial structures of unknown complexity, however, EFA has an advantage over CFA because the latter requires researchers to know which items load on which factor (and which items show complex loadings) and specify the CFA accordingly (Brown, 2006). However, with the combined findings from Dickie et al.'s and the present study, we now have the knowledge necessary to specify a-priori models and employ CFA to confirm the CPQ's two-factorial structure in future studies.

Despite these limitations, the findings from the present study make an important contribution to theory and research on clinical perfectionism and its assessment. Whereas the present study provides further evidence for the CPQ's convergent validity, issues with reliability and construct validity remain. Consequently, we think that future theory and research on clinical perfectionism would profit from reviewing the conception of clinical perfectionism and/or the CPQ as a measure of clinical perfectionism. If clinical perfectionism is conceptualized as a one-dimensional construct, a one-dimensional measure is needed. Alternatively, if the CPQ is regarded a valid measure of clinical perfectionism, but the CPQ total scores are

multidimensional, the conception of clinical perfectionism needs to be revised to align measure and construct.

Footnotes

[1]This follows Cohen (1992) who regarded |correlations| of .10, .30, and .50 as small, medium, and large, respectively.

[2]Excluding Items 2 and 8 from the CPQ total score increased Cronbach's alpha from .73 to .79.

[3]Because two items showed substantial crossloadings, we decided to compute factor scores including the two items instead of subscale scores excluding the items (cf. Dickie et al., 2012).

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Table 1

Clinical Perfectionism Questionnaire (CPQ) Items: Item Analysis and Exploratory Factor Analyses

Items: Over the past month, …	CITC	EFA 1		EFA 2	
		F1	F2	F1	F2
1. have you pushed yourself really hard to meet your goals?	.42	**.73**	−.19	**.73**	−.27
2. have you tended to focus on what you have achieved, rather than on what you have not achieved? (R)	.02	.21	**−.47**	.22	**−.36**
3. have you been told that your standards are too high?	.46	**.64**	.08	**.55**	.01
4. have you felt a failure as a person because you have not succeeded in meeting your goals?	.50	.27	**.78**	.09	**.79**
5. have you been afraid that you might not reach your standards?	.50	**.33**	**.71**	.17	**.65**
6. have you raised your standards because you thought they were too easy?	.28	**.42**	.13	**.32**	.07
7. have you judged yourself on the basis of your ability to achieve high standards?	.55	**.47**	**.56**	**.34**	**.46**
8. have you done just enough to get by? (R)	−.06	**−.32**	**.59**	**−.35**	**.50**
9. have you repeatedly checked how well you are doing at meeting your standards (for example, by comparing your performance with that of others)?	.53	**.62**	**.32**	**.52**	.21
10. do you think that other people would have thought of you as a "perfectionist"?	.49	**.71**	.02	**.66**	−.07
11. have you kept trying to meet your standards, even if this has meant that you have missed out on things?	.53	**.74**	.05	**.71**	−.05
12. have you avoided any tests of your performance (at meeting your goals) in case you failed?	.24	.13	**.50**	.05	**.37**

Note. $N = 316$. Underlined words as in the original (Fairburn et al., 2003). CITC = corrected item-total correlation. EFA 1 = exploratory factor analysis (EFA) using principal components analysis and varimax rotation (following Dickie et al., 2012); EFA 2 = EFA using principal axis factoring and promax rotation (following Russell, 2002). F1 = Factor 1, F2 = Factor 2. EFA 2 loadings are from the pattern matrix, and |loadings| > .30 are boldface. (R) = reverse-scored item. Answers to Items 2 and 8 were reversed when computing CITCs, but were not reversed in the EFAs to aid the interpretability of positive vs. negative loadings (see 3.2).

Table 2

Clinical Perfectionism Questionnaire (CPQ) Total and Factor Scores: Bivariate and Partial Correlations

Variable	CPQ	EFA 1		EFA 2			
		F1	F2	F1	F2	F1.F2	F2.F1
Dispositional perfectionism							
FMPS							
Personal standards	.57***	.59***	.12*	.61***	.27***	.57***	.00
Pure personal standards	.52***	.59***	.03	.59***	.17**	.58***	−.12*
Concern over mistakes	.61***	.41***	.45***	.48***	.54***	.32***	.42***
Doubts about actions	.49***	.28***	.47***	.36***	.53***	.16**	.44***
HF-MPS							
Perfectionistic striving	.42***	.50***	−.05	.50***	.07	.52***	−.19***
Importance of being perfect	.59***	.57***	.19***	.60***	.32***	.54***	.07
Others' high standards	.42***	.33***	.25***	.38***	.33***	.28***	.20***
Conditional acceptance	.47***	.28***	.43***	.35***	.51***	.17**	.42***
Perfectionism cognitions							
Personal standards	.50***	.54***	.09	.55***	.22***	.52***	−.02
Pursuit of perfection	.61***	.58***	.24***	.61***	.37***	.54***	.14*
Concern over mistakes	.57***	.35***	.50***	.44***	.58***	.26***	.48***
Perfectionistic self-presentation							
Perfectionistic self-promotion	.46***	.44***	.17**	.48***	.27***	.41***	.07
Nondisplay of imperfection	.24***	.12*	.25***	.17**	.27***	.06	.22***
Nondisclosure of imperfection	.28***	.16**	.27***	.20***	.28***	.09	.22***

Note. $N = 316$. CPQ = CPQ total score. EFA 1, EFA 2 = see Table 1. F1 = factor score for F1; F2 = factor score for F2. All correlations are bivariate except F1.F2 (partial correlation of F1 controlling for F2) and F2.F1 (partial correlation of F2 controlling for F1). FMPS = Frost Multidimensional Perfectionism Scale; HF-MPS = Hewitt-Flett Multidimensional Perfectionism Scale. EFA 1: r(F1, F2) = 0; EFA 2: r(F1, F2) = .44, $p < .001$.
*$p < .05$. **$p < .01$. ***$p < .001$.