A critical study on the newest model of perfectionism

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Abstract

Introduction: The 2×2 model is the newest model of perfectionism that has been raised several hypotheses about the compatibility's level of different types of perfectionism. The main aim of this study is to test these hypotheses.
Methods: A hundred and ninety eight MA students were selected through a cluster random sampling and were divided into four groups based on perfectionism's types with Hill perfectionism as a screening test. Afterwards, these four groups were compared using multivariate analysis of variance (MANOVA) in terms of the components of general health and two personality characteristics (Neuroticism and Conscientiousness) to test the 2×2 model hypotheses.
Results: Hypothesis1c and hypothesis 4 of the 2×2 model of perfectionism were accepted. This is was while the hypothesis 2 and hypothesis 3 were not accepted because the results of the research showed the mixed perfectionism is more maladaptive compared to the other combinations of ECP and PSP.
Conclusion: It seems that the perfectionism tests -especially the Hill perfectionism inventory- are not able to measure the absolute adaptive perfectionism. Therefore, the main suggestion of the research is that future researchers may try to understand the characteristics of adaptive perfectionism and design the test that can measure the quite adaptive perfectionism.

Keywords: Perfectionism, General Health, 2×2 Model

Introduction

Perfectionism, in psychology, is an abstract concept that does not have a universal definition. One of hundreds define it as follow:" Perfectionism is a unique combination of a desire for perfection , perfectionism , fear of failure , and emotional conviction that perfection (not "almost perfect ") is the only route to personal acceptance by others" [1]. But this definition refers only to the negative aspect of perfectionism, while perfectionism has two aspects: "positive versus negative" or "normal versus neurotic" or "adaptive versus maladaptive". *Hamachek* was one of the first psychologists to argue for two distinct types of perfectionism, classifying people as normal perfectionists or neurotic perfectionists. Normal perfectionists pursue perfection without compromising their self-esteem, and derive pleasure from their efforts. Neurotic perfectionists strive for unrealistic goals and consistently feel dissatisfied when they cannot reach those [2].

It is said that *Hamachek*, *Frost* et al. [3] identified perfectionism as having five dimensions. The first dimension, which is considered the major dimension, is concern over mistakes. This reflects a tendency to interpret mistakes as equivalent to failure, and the belief that one will lose the respect of others following failure. The second dimension is the setting of excessively high personal standards, which often cannot be met satisfactorily.

The third dimension is parental expectations, which involves the extent to which the parents of the individual are perceived as setting high expectations. The fourth dimension is parental criticism, which involves the extent to which parents are perceived as being overly critical. The fifth dimension is doubts about actions, which is the tendency to doubt the quality of one's performance. Additionally, a sixth dimension has been identified. This is organization, which reflects a tendency to be orderly and organized [3, 4]. Alternatively, *Hewitt* and *Flett* identified three dimensions of perfectionism. The first dimension is self-oriented perfectionism, in which the individual has unrealistic standards for themselves, strives for these standards, is overly critical for them, tends to overly focus on their flaws, and tries to avoid failure. The second dimension is other-oriented perfectionism, in which the individual has unrealistic standards and expectations about the abilities of others, and is often overly evaluative of others' performance.

The third dimension is socially-prescribed perfectionism, in which the individual believes that others have perfectionist expectations and motives about them, and they feel they must attain these standards [5]. Recently, *Hill* et al. [6] have introduced a new measure of perfectionism as the Perfectionism Inventory (PI). His inventory includes a) two main scales: Conscientious Perfectionism (CP) and Self-Evaluative Perfectionism (SEP), and b) eight subscales: Concern Over Mistakes (CM), High Standards for Others (HSO), Need for Approval (NA), Organization (O), Perceived Parental Pressure (PP), Planfulness (P), Rumination (R) and Striving for Excellence (SE). HSO, O, P and SE are classified in the "Conscientious Perfectionism" scale and CM, NA, PP and R, are classified in the "Self-Evaluative Perfectionism" scale.

Hill has reported that PI Conscientious Perfectionism is most strongly associated with the "self-oriented perfectionism" in the "*Hewitt* and *Flett* Multiple Perfectionism Scale", is associated with "personal standards" and "organization" in the "Frost Multiple Perfectionism Scale". Moreover PI Self-Evaluative Perfectionism is most strongly associated with the "socially-prescribed perfectionism" in the "*Hewitt* and *Flett* Multiple Perfectionism Scale", is associated with "concern over mistakes", "doubts about actions", "parental criticism" and "parental expectations" in the "Frost Multiple Perfectionism Scale".

Generally, adaptive perfectionism (self-oriented perfectionism or conscientious perfectionism) have positive results. For example, self-oriented perfectionism has been associated with a number of positive adaptive qualities, including achievement striving, positive affect, high self-esteem, self-efficacy, self-actualization, resourcefulness, perceived control, adaptive coping with stress, positive appraisals of personal projects, adaptive learning strategies, good academic performance, and positive interpersonal characteristics, such as self-assurance, assertiveness, and altruistic social attitudes [7]. This is while maladaptive perfectionism (socially-prescribed perfectionism, self-evaluative perfectionism and concern over mistakes, parental expectations, parental criticism or doubts about actions) have a positive correlation such as with depression [8], eating disorders [9, 10], obsessive compulsive disorder [10], anxiety disorders [11], suicide [12], social anxiety [13] and many other psychological disorders. In addition, self-oriented perfectionism and conscientious perfectionism usually have been associated with conscientiousness [14, 15] and socially-prescribed perfectionism, or self-evaluative perfectionism have usually been associated with neuroticism [14, 16].

Gaudreau & *Thompson* [17] recently introduced the 2×2 model of perfectionism. In this model, based on the amount of "evaluative concerns perfectionism (ECP)" and "personal standards perfectionism (PSP)", four subtype of perfectionism have been considered: (a) pure PSP (low ECP, high PSP), (b) mixed perfectionism (high ECP, high PSP), (c) pure ECP (high ECP, low PSP), and (d) non-perfectionism (low ECP, low PSP).

The 2×2 model comprises four hypotheses: Hypothesis 1a states that pure PSP is more adaptive compared to non-perfectionism. Hypothesis 1b states that pure PSP is more maladaptive compared to non-perfectionism, and hypothesis 1c states that pure PSP and non-perfectionism do not differ in adaptiveness/maladaptiveness. Hypothesis 2 states that pure ECP is more maladaptive compared to the other combinations of ECP and PSP. Hypothesis 3 states that mixed perfectionism is less maladaptive compared to pure ECP and hypothesis 4 states that mixed perfectionism is more maladaptive compared to pure PSP [18, 19]. The current study has attempted to test the hypotheses of this new model.

Methods

A hundred and ninety eight MA students were selected through a cluster random sampling and were divided into four groups based on perfectionism's types. The four groups were matched for age (F= 2.486, p= 0.063): pure PSP (N=30, M= 25.13, SD= 2.192); pure ECP (N=34, M= 24.44, SD= 1.726); mixed perfectionism (N=53, M= 24.33, SD= 1.254) and non-perfectionism (N=49, M= 24.1, SD= 1.623).

After selecting the members of the sample group, two tests were performed on them. Hill perfectionism as a screening test was used and by this test, based on the amount of conscientious perfectionism (CP) and self-evaluative perfectionism (SEP) the sample group was divided into four distinct groups. These groups were: pure CP (low SEP, high CP), pure SEP (high SEP, low CP), mixed perfectionism (high SEP, high CP), and non-perfectionism (low SEP, low CP). It is worth noting that CP is equivalent to PSP and SEP is equivalent to ECP in the 2×2 model of perfectionism.

The above mentioned groups were then compared using multivariate analysis of variance (MANOVA) in terms of the components of general health to test the 2×2 model hypotheses.

Hill Perfectionism Inventory (hill et al, 2004) includes 59 sentences and 8 subscales including: concentration over mistakes, need for approval, rumination, perceived

parental pressure, organization, planfulness, high standards for others, and striving for excellence. Dimensions one to four are among the negative aspects (self-evaluative perfectionism) and dimensions five to eight are among the positive aspects of perfectionism (conscientious perfectionism). This self-report questionnaire was developed by combining the most salient factors from the *Hewit*t and *Flett* Multidimensional Perfectionism Inventory and the Frost et al.'s Multidimensional Perfectionism Inventory. Items are rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The reported Cronbach's alpha by *Jamshidi* et al. [20] was between 0.83 and 0.91 using Cronbach's alpha (internal consistency) in Iran. Cronbach's alpha of this inventory was 0.86 in the present study.

General Health Questionnaire (*Goldberg*, 1972) GHQ is a self-report questionnaire consisting of 28 items. The questionnaire includes 4 subscales (physical symptoms, anxiety & sleeping disorder, social function disorder, and depression symptoms). Test-retest reliability has been reported 0.9 and cronbach's a= 0.9- 0.95 [21]. Also in this research, 0.785 was the Cronbach's alpha of the General Health Questionnaire.

NEO Five-Factor Inventory -NEO-FFI- (*Costa* & *McCrae*, 1989). The 60-item NEO Five-Factor Inventory (NEO-FFI) was developed to provide a concise measure of the five basic personality factors: Neuroticism (N), Agreeableness (A), and Conscientiousness (C) factors, but problems with the Extraversion (E) and Openness (O). For each scale, 12 items were selected from the pool of 180 NEO Personality Inventory (NEO-PI) items, chiefly on the basis of their correlations with validimax factor scores. This instrument uses a five-point Likert response format. According to *Robins*, *Fraley*, *Roberts, & Trzesniewski* (2001) two-week retest reliability is uniformly high, ranging from 0.86 to 0.90 for the five scales [22]. In this research, 0.736 was the Cronbach's alpha of neuroticism and 0.835 was the Cronbach's alpha of conscientiousness.

Results

Since the comparison between the four groups with multiple dependent variables (general health components and two personality factors) is done, the multivariate analysis of variance (MANOVA) was used (see table 1). The data of this table shows that the four groups are significantly different with each other in terms of the GHQ- components and also the two personality factors.

The research groups were different in all of the general health components: Physical symptoms: F=2.904, p=0.036; Anxiety & sleeping disorder: F=14.653, p= 0.000; Social function disorder: F=8.918, p= 0.000; Depression symptoms: F=3.699, p=.0.013; GHQ (total), F=6.629, p= 0.000; Neuroticism: F=20.180, p=.0.000; & Conscientiousness: F=31.902, p=.0.000 (see table 2).

To determine the exact differences between the groups, the post hock tests were used. Scheffe (for non-significant Levin tests) and Dunnett T3 (for significant Levin tests) were employed as the post hock tests (see table 3).

According to the table 3:

a) The mean of mixed-perfectionism group scores in all of the general health components are significantly more than the means of the other groups.

b) The pure ECP group has a higher mean of scores than the pure PSP group in the "anxiety & sleeping disorder" and a lower mean of scores than the mixed- perfectionism group in the "depression symptoms".

c) The mean scores of the pure PSP group is lower than the non-perfectionism group in the "social function disorder".

d) The mean scores of the pure PSP and non-perfectionism groups are lower than the ECP and mixed perfectionism groups in the "neuroticism".

Table 1.The multivariate analysis of variance (MANOVA)

	Effect	***Value***	***F***	***Hypothesis df***	***Error df***	***Sig.***
Perfectionism types	Pillai's Trace	.904	8.067	30.000	561.000	.000
	Wilks' Lambda	.335	8.191	30.000	543.688	.000
	Hotelling's Trace	1.348	8.252	30.000	551.000	.000
	Roy's Largest Root	.654	12.228	10.000	187.000	.000

Table 2. Tests between-subjects effects

Scales of GHQ	**pure PSP group (N= 47)**		**pure ECP group (N= 34)**		**mixed perfectionism group (N= 56)**		**non-perfectionism group (N= 61)**		**Levin test**	**Sig.**	**F**	**Sig.**
	M	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**				
physical symptoms	5.978	4.321	5.323	3.345	5.839	3.561	4.278	2.367	3.504	.016	2.904	.036
anxiety & sleeping disorder	3.659	3.191	6.382	3.247	8.071	3.921	5.213	3.425	2.505	.060	14.653	.000
social function disorder	5.744	2.690	7.235	2.202	7.660	2.718	8.393	2.894	1.240	.296	8.918	.000
depression symptoms	1.957	3.599	2.205	1.628	4.392	4.788	2.983	4.514	7.431	.000	3.699	.013
GHQ (total)	17.340	9.935	21.382	8.686	25.96	10.748	20.868	9.721	2.037	.110	6.629	.000
neuroticism	20.617	4.980	23.970	2.599	26.553	6.446	19.770	5.027	7.101	.000	20.180	.000
conscientiousness	28.000	4.403	25.911	2.700	31.857	4.257	24.590	4.576	5.080	.002	31.902	.000

Table 3. Post hoc tests (only significant cases)

Dependent variable	Post hock test type	(I) perfectionism type	(J) perfectionism type	Mean difference (I-J)	Std. Error	Sig.
physical symptoms	Dunnett T3	mixed perfectionism	non-perfectionism	1.5606	.56423	.040
anxiety & sleeping disorder	Scheffe	pure PSP	pure ECP	-2.7228	.78634	.009
			mixed perfectionism	-4.4119	.69092	.000
		mixed perfectionism	non-perfectionism	2.8583	.64638	.000
social function disorder	Scheffe	pure PSP	mixed perfectionism	-1.9160	.53183	.006
			non-perfectionism	-2.6488	.52179	.000
depression symptoms	Dunnett T3	pure PSP	mixed perfectionism	-2.4354	.82775	.024
		pure ECP	mixed perfectionism	-2.1870	.69826	.015
GHQ	Scheffe	pure PSP	mixed perfectionism	-8.6239	1.96058	.000
neuroticism	Dunnett T3	pure PSP	pure ECP	-3.3536*	.85237	.001
			mixed perfectionism	-5.9366*	1.12692	.000
		mixed perfectionism	non-perfectionism	6.7831*	1.07544	.000
		non-perfectionism	pure ECP	-4.2001*	.78304	.000
conscientiousness	Dunnett T3	pure PSP	mixed perfectionism	-3.8571*	.85804	.000
			non-perfectionism	3.4098*	.86946	.001
		pure ECP	mixed perfectionism	-5.9454*	.73363	.000
		mixed perfectionism	non-perfectionism	7.2670*	.81672	.000

e) The mean scores of the mixed-perfectionism group in "conscientiousness" is significantly more than the means of the other groups. Moreover, in this factor, the pure PSP group has a higher mean of scores compared to the non-perfectionism group.

Discussion

According to the mentioned results, we can say that hypothesis 1c and hypothesis 4 are accepted but hypothesis 2 and hypothesis 3 are not accepted. This is because the results of this research show that the mixed perfectionism is more maladaptive compared to the other combinations of ECP and PSP. This finding is almost the opposite of the previous researches like *Gaudreau* and *Verner-Filion* [23], *Stoeber* [24], *Franche* et al.[25], *Gaudreau* and *Thompson* [19].

Also, since this study has used a new test to measure the perfectionism, the Hill perfectionism inventory may not be able to measure the ECP and PSP, properly. But, on the other hand, the obtained results seem reasonable as we know that extremism perfectionism of any kind, is maladaptive and if two maladaptive kinds of perfectionism are combined with each other, the degree of incompatibility will increase; so, the mixed perfectionism should be more maladaptive.

Conclusion

According to the findings of this research we can say that maybe adaptive perfectionism doesn't exist or the perfectionism tests are not fully able to measure the absolute adaptive perfectionism. Therefore, the main suggestion to future investigators is that they can try to understand the characteristics of adaptive perfectionism and design a test that can measure the quite adaptive perfectionism. Studying the *Hamachek* theory will help them as all the recent tests of perfectionism, i.e. *Hewitt* and *Flett* multidimensional perfectionism inventory and Hill perfectionism inventory classify the types of perfectionism based on high personal standards or standards imposed by others, but the *Hamachek* theory, classifies the types of perfectionism based on the flexibility of standards. It seems that "flexibility" is a good clue to find the features of adaptive perfectionism.

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