

Are Perfectionism Dimensions Risk Factors for Bulimic Symptoms?

A Meta-Analysis of Longitudinal Studies

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Abstract

Background: Case histories, theoretical accounts, and empirical studies suggest an important relationship between perfectionism and bulimic symptoms. However, whether perfectionism confers vulnerability for bulimic symptoms is unclear.

Objective: To address this, we conducted a meta-analysis testing if socially prescribed perfectionism, concern over mistakes, doubts about actions, personal standards, self-oriented perfectionism, and EDI-perfectionism predict increases in bulimic symptoms over time.

Method: Our literature search yielded 12 longitudinal studies for inclusion.

Results: Meta-analysis using random effects models showed perfectionistic concerns and EDI-perfectionism, but not perfectionistic strivings, had positive relationships with follow-up bulimic symptoms, after controlling for baseline bulimic symptoms.

Conclusion: Results lend credence to theoretical accounts implicating perfectionism in the development of bulimic symptoms.

Introduction

Bulimia nervosa is associated with widespread financial, medical, and social burden (Crow et al., 2009; Mitchell & Crow, 2006).

Affected individuals experience recurrent episodes of binge eating followed by compensatory methods to prevent weight gain (e.g., vomiting; American Psychiatric Association, 2013).

Personality traits, such as perfectionism, are one area of etiological importance associated with bulimic symptoms (Loxton, & Dawe, 2009), yet our understanding of whether perfectionism predicts increases in bulimic symptoms is limited.

Thus, we conducted a rigorous meta-analytic review testing the extent to which perfectionism dimensions confer risk for bulimic symptoms.

Hypotheses

H1: Perfectionistic concerns (socially prescribed perfectionism, concern over mistakes, and doubts about actions) will predict increases in bulimic symptoms.

H2: EDI-perfectionism will predict increases in bulimic symptoms.

We considered our examination of perfectionistic strivings predicting changes in bulimic symptoms to be exploratory.

Method

PsycINFO, PubMed, Educational Resource Information Center (ERIC), and ProQuest Dissertations and Theses were searched to locate longitudinal studies on perfectionism and bulimic symptoms.

The final sample of included studies was comprised of 12 studies with a pooled total of 4,665 participants (see Figure 1).

Samples were composed of adolescents, undergraduates, and community adults (M age = 19.3; 86.8% female; 73.1% Caucasian).

Figure 1. Study selection procedure.

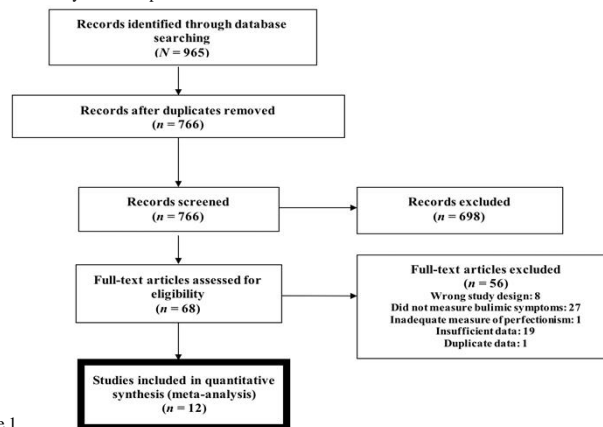


Table 1 Characteristics of longitudinal studies included in the meta-analysis

Study	N	Sample type	Mean age	Time lag	Attrition (%)	Sample		Status	Measurement	
						Female (%)	Ethnic Minority (%)		Perfectionism	Disordered eating
Boone et al. (2011)	708	Community	13.9	104.0	21.1	57.0	NR	Article	FMPS-COM FMPS-DAA FMPS-PS	EDI-II-B
Boone et al. (2014a)	455	Community	13.3	52.0	40.4	100.0	100.0	Article	FMPS-COM FMPS-DAA FMPS-PS	EDI-II-B
Boone et al. (2014b)	566	Community	13.3	52.0	NR	72.0	0.0	Article	FMPS-COM FMPS-DAA	EDI-II-BE
Bross and Levinson (2017)	300	University	18.0	26.1	36.7	100.0	39.3	Article	FMPS-COM	EDI-II-BE
Holm-Denoma et al. (2005)	150	Community	45.2	130.4	NR	100.0	10.0	Article	EDI-P	EDI-B
Joiner et al. (1997)	459	University	20.0	521.4	0.0	100.0	19.7	Article	EDI-P	EDI-B ED diagnosis
Levinson et al. (2016)	300	University	NR	26.5	36.7	100.0	39.3	Article	FMPS-COM FMPS-DAA FMPS-PS FMPS-PC FMPS-PE	EDI-II-B
Mackinnon et al. (2011)	200	University	19.9	3.0	5.5	100.0	12.0	Article	FMPS-SF-COM FMPS-SF-PS	EDDS-BE
Mushtaq and Sherry (2013)	218	University	20.0	3.0	NR	100.0	8.3	Article	HMPS-SF-SPP	EDI-B
Selm et al. (2016) sample 1 (girls)	523	Community	14.4	86.9	28.8	100.0	NR	Article	EDI-C-P	ChEDE-BE
Selm et al. (2016) sample 2 (boys)	516	Community	14.3	86.9	28.8	0.0	NR	Article	EDI-C-P	ChEDE-BE
Smith et al. (2017)	200	University	19.9	4.0	4.5	100.0	12.0	Article	HMPS-SF-SPP FMPS-SF-COM FMPS-SF-DAA	EDI-B EDDS-BE BULTI-R-BE
Vohs et al. (2001)	70	University	NR	6.5	NR	100.0	28.0	Article	EDI-P	EDI-B

Note. N = total number of participants; time lag reported in weeks; NR = not reported SF = short-form; FMPS = Frost et al. (1990) Multidimensional Perfectionism Scale; COM = concern over mistakes; DAA = doubts about action; PS = personal standards; PC = parental criticism; PE = parental expectations; EDI-II = Garner's (1991) Eating Disorder Inventory-II; B = bulimia; BE = binge eating; EDI = Garner et al. (1983) Eating Disorder Inventory; P = perfectionism; EDDS = Stice et al. (2000) Eating Disorder Diagnostic Scale; HMPS = Hewitt and Flett's (1991) Multidimensional Perfectionism Scale; SPP = socially prescribed perfectionism; EDI-C = Thiels et al. (2011) German version of the Child Eating Disorder Inventory; ChEDE = Hilbert et al. (2008) German Version of the Child Eating Disorder Examination Questionnaire; BULTI-R = Thelen et al. (1991) Bulimia Test-Revised.

Results

Table 2 Summary of effect sizes for perfectionism dimensions and bulimic symptoms, controlling for baseline bulimic symptoms

Variable	k	N	r ²	95% CI	Q _T	I ² (%)	Egger's intercept	95% CI	K ²	Trim and fill estimates
Perfectionistic concerns	8	2,375	.15***	[.11, .19]	6.58	0.00	-2.23	[-5.24, 0.79]	0	.15 [.11, .19]
Evaluative concerns perfectionism*										
EC-P, BS;	4	2,029	.35***	[.27, .43]	11.85**	74.68	0.30	[-34.05, 34.66]	0	.35 [.27, .43]
BS; →BS;	4	1,586	.54***	[.45, .62]	16.57***	81.89	7.26	[-9.60, 24.12]	0	.54 [.45, .62]
EC-P; →BS;	4	1,586	.16***	[.10, .22]	4.40	31.86	-2.57	[-14.57, 9.42]	0	.16 [.10, .22]
Concern over mistakes										
COM, BS;	3	500	.32***	[.25, .40]	2.42	17.43	8.82	[-16.55, 34.19]	0	.32 [.25, .40]
BS; →BS;	3	571	.66***	[.57, .74]	6.19*	67.68	-716.03	[2021.12, 589.06]	0	.66 [.57, .74]
COM; →BS;	3	571	.14***	[.06, .22]	0.12	0.00	78.68	[-1649.90, 1807.27]	0	.14 [.06, .22]
Doubts about action										
DAA, BS;	1	200	.35***	[.22, .47]	—	—	—	—	—	—
BS; →BS;	1	191	.71***	[.63, .77]	—	—	—	—	—	—
DAA; →BS;	1	191	.12	[-.02, .26]	—	—	—	—	—	—
Socially prescribed perfectionism										
SPP, BS;	2	418	.18***	[.06, .30]	1.59	36.93	—	—	—	—
BS; →BS;	2	409	.67***	[.48, .80]	8.32**	87.98	—	—	—	—
SPP; →BS;	2	409	.06	[-.04, .16]	0.04	0.00	—	—	—	—
Personal standards										
PS, BS;	4	1,663	.14***	[.06, .22]	7.78	61.44	1.27	[-16.75, 19.29]	0	.14 [.06, .22]
BS; →BS;	4	1,394	.64***	[.51, .74]	34.78***	91.37	12.09	[4.94, 19.25]	0	.64 [.51, .74]
PS; →BS;	4	1,394	.04	[-.06, .13]	8.95*	66.46	-2.78	[-19.81, 14.26]	1	.01 [-.08, .10]
Other forms of perfectionism										
EDI-P, BS;	5	1,718	.10	[-.03, .22]	23.62***	83.06	0.16	[-11.95, 12.27]	0	.10 [-.03, .22]
BS; →BS;	5	1,418	.48***	[.37, .57]	22.37***	82.12	5.74	[-1.93, 13.42]	1	.43 [.31, .53]
EDI-P; →BS;	5	1,418	.06*	[.01, .11]	2.47	0.00	-0.70	[-4.85, 3.44]	0	.06 [.01, .11]

Note. k = number of studies; N = total number of participants in the k samples; r² = weighted mean r; CI = confidence interval; Q_T = measure of heterogeneity of effect sizes; I² = percentage of heterogeneity; Egger's intercept = Egger's test of regression to the intercept; K² = number of imputed studies as part of trim and fill method.
*Aggregate of FMPS-COM, FMPS-DAA, FMPS-PC, and FMPS-PE
*p < .05; **p < .01; ***p < .001.

Discussion

Our meta-analysis represents the most comprehensive investigation of the link between perfectionism and bulimic symptoms to date.

Perfectionistic concerns predicted longitudinal increases in bulimic symptoms.

Findings support theoretical accounts suggesting perfectionistic concerns are part of the premorbid personality of people at risk for bulimic symptoms.

People with high perfectionistic concerns often experience dysfunction in the social domain where they chronically perceive or encounter negative social interactions (Sherry & Hall, 2009). Likewise, people with high perfectionistic concerns experience others as disappointed and disconnected from them, resulting in poor interpersonal relationships and sadness (Mackinnon, Sherry, et al., 2011). As a result, people high in perfectionistic concerns may use bulimic symptoms (e.g., binge eating) to cope with or to escape from their lack of connection and negative self-awareness (Heatherton & Baumeister, 1991; Sherry et al., 2014).