Trying to be perfect in an imperfect world: A person-centred test of perfectionism and health in fibromyalgia patients versus healthy controls

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ABSTRACT

The Stress and Coping Cyclical Amplification Model of Perfectionism in Illness posits, that in the context of a chronic illness, both perfectionistic strivings and concerns contribute to poor health outcomes. Similarly, person-centred models, such as the tripartite model of perfectionism, claim that high levels of both perfectionism concerns and strivings reflect an "unhealthy" perfectionism that takes a toll on well-being. To date there are few comparative tests of these models for physical and mental health outcomes in healthy versus chronically ill individuals. The aim of the current study was to investigate the implications of perfectionism for health by testing how within-person combinations of perfectionism varied in relation to health outcomes, and between fibromyalgia patients ($n = 89$) and healthy controls ($n = 123$). Supporting both models, within-person combinations of high perfectionistic strivings and concerns were associated with high stress and poor mental and physical health compared to other within-person combinations. These links were more robust for fibromyalgia patients compared to controls, and stress mediated the association with physical health outcomes only for the fibromyalgia patients. Findings support the value of taking a person-centred approach for understanding how perfectionistic strivings contributes to poor health in the context of chronic illness.

1. Introduction

A growing body of evidence indicates that perfectionism is a trait that can create risk or resilience for health and well-being. Perfectionism is commonly viewed by researchers as being comprised of two higher order factors, *Perfectionistic Concerns* (PC) and *Perfectionistic Strivings* (PS; Dunkley, Blankstein, Halsall, Williams, & Winkworth, 2000; Stoeber & Otto, 2006). Harsh self-scrutiny, heightened concerns about mistakes and not meeting others' perceived demands for perfection, and excessive reactions to perceived failures, are among the defining characteristics of PC that make this perfectionism dimension a vulnerability factor for poor health-related outcomes (Molnar, Sadava, Flett, & Colautti, 2012; Sirois & Molnar, 2017). PS, in contrast, is characterised by setting and compulsively striving toward often excessively high standards, which some researchers have argued can have benefits for well-being (e.g., Stoeber & Corr, 2016). Although

PS has often been referred to as the "healthier" of the two perfectionism dimensions (Sirois, Monforton, & Simpson, 2010; Stoeber & Otto, 2006), emerging theory and research challenges this assumption and fuels the debate regarding whether, and under what circumstances, PS may be detrimental to health (Molnar & Sirois, 2016).

The *Stress and Coping Cyclical Amplification Model of Perfectionism in Illness* (SCCAMPI; Molnar & Sirois, 2016) proposes that in the context of living with a stressful chronic health condition, both PC *and* PS create vulnerability for adjustment. Derived from extant research on the role of perfectionism in stress and coping, the SCCAMPI provides a provisional framework for understanding how PS as well as PC may complicate adjustment to chronic illness. The SCCAMPI posits that dealing with the limitations in functioning, fatigue, and pain often associated with chronic health conditions can be particularly challenging for PC and PS perfectionists in this context because of their heightened responses to stress and maladaptive coping, which in turn negatively

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impact physical symptoms and disease management behaviours.

Current research on perfectionism in chronic illness provides preliminary support for these propositions. For example, in people with inflammatory bowel disease, both PC and PS were associated with the use of maladaptive coping strategies and greater physical impact of illness (Flett, Baricza, Gupta, Hewitt, & Endler, 2011). Similar results have been found for cardiac rehabilitation patients (Shanmugasegaram et al., 2014). In a study of women with fibromyalgia, PC was associated with poorer health functioning after controlling for sociodemographic and disease variables, whereas PS had a curvilinear relationship with health functioning, with the highest and lowest levels of PS showing the poorest functioning (Molnar, Flett, Sadava, & Colautti, 2012). Living with chronic illness necessitates a renegotiating of one's goals so that they are more realistic. Because PS is associated with difficulties in disengaging from unproductive goals (Eddington, 2013), high levels of PS may be particularly harmful in the context of chronic illness.

Despite the promise of the SCCAMPI (Molnar & Sirois, 2016) for understanding the role of context when discerning whether and when PS may be healthy or not, there have been few if any studies that directly test its underlying assumptions. One key assumption of the SCCAMPI is that the challenges of living with a chronic health condition and the demand for ongoing coping efforts make PS a vulnerability factor for higher stress and thus poor health-related outcomes, whereas PS may not create the same vulnerabilities for individuals without these health challenges. Yet to date, research has primarily examined PS and its associations with health-outcomes within specific illness groups but not in comparison to a healthy control group. Another, and perhaps more fundamental, assumption that is yet to be fully addressed is that *both* PC and PS create vulnerability for poor health outcomes in the context of chronic illness. Rather than being completely distinct, PC and PS often co-occur within the same individual. Indeed, the two perfectionism dimensions are positively correlated with one another, with one analysis of 13 diverse samples finding an average correlation of $r = 0.39$ (Sirois & Molnar, 2017). Consistent with this evidence and a person-centred view of perfectionism (Gaudreau & Thompson, 2010; Smith, Saklofske, Yan, & Sherry, 2015), the SCCAMPI would therefore predict that the proposed negative effects of PS would be amplified when levels of PC are also high. Although this assumption was not made explicit in the original outlining of the SCCAMPI (Molnar & Sirois, 2016), it is nonetheless implied given the known moderate sized associations between PS and PC.

The combined effects of PC and PS are perhaps best captured by person-centred models of perfectionism, of which there are two that are most widely used. The 2×2 model of perfectionism (Gaudreau & Thompson, 2010) posits that four distinct perfectionism dispositions can be differentiated depending on whether PC and PS are high or low: non-perfectionists (low PC and PS), pure PC (high PC and low PS), pure PS (high PS and low PC), and mixed perfectionism (high PC and PS). In contrast, the tripartite model of perfectionism (Rice & Ashby, 2007; Stoeber & Otto, 2006), posits that only three dispositions can be differentiated: healthy perfectionism (high PS and low PC), unhealthy perfectionism (high PS and high PC), and non-perfectionism (low PS). Researchers have noted that the key distinction between these models is that the tripartite model views high levels of PS and PC as the most maladaptive combination, whereas the 2×2 model views high levels of PC and low levels of PS as the most maladaptive combination (Smith et al., 2015). Evidence from two large samples supports a tripartite model of perfectionism versus a 2×2 model, with the high PS/PC disposition found to be associated with higher levels of negative emotionality, whereas the high PC/low PS combination was associated with lower negative emotionality (Smith et al., 2015).

1.1. Aims and hypotheses

The aim of the current study was to take a person-centred approach to understand the implications of PS for health in the context of chronic

illness by testing both the SCCAMPI and the tripartite model of perfectionism in a sample of fibromyalgia patients (FMP), and in comparison to a healthy control group. Fibromyalgia is a common chronic pain condition affecting three to 6% of the world population (National Fibromyalgia Association, 2017). It is characterised by symptoms of muscle pain, fatigue, and tender points, with diagnoses clinically defined as widespread pain experienced for at least 3 months and accompanied by at least 11 of 18 tender points (Wolfe et al., 2010). The disruptive symptoms of fibromyalgia for sleep and daily functioning create an ongoing context of stress, and thus a relevant context to test the SCCAMPI. Not only do FMP experience higher levels of stress than healthy controls (Coppens et al., in press), but this stress can further exacerbate both physical symptoms and mental health (Van Houdenhove, Egle, & Luyten, 2005). Although the etiology of fibromyalgia is unclear, suspected risk factors include sex, obesity, and the experience of stressful events (Centers for Disease Control and Prevention, 2017).

Consistent with the tripartite model of perfectionism we expected that the dispositional combination of high PS/PC would confer the greatest risk for health-related outcomes in the form of higher stress, and poor physical and mental health, as compared to the combination of high PS/low PC, and low PS. However, we also expected that this vulnerability would be more pronounced among FMP compared to healthy controls, and that higher levels of stress associated with the high PS/PC combination would explain the links between high PS/PC and poor physical and mental health for the FMP, but not for healthy controls.

2. Methods

2.1. Participants and procedure

Participants were 89 FMP and 123 healthy controls. As compared to healthy controls, FMP were significantly older by about 13 years. Only one patient was male while 13 healthy controls were male. Far fewer FMP were single, slightly fewer were married, but more were widowed or divorced compared to health controls. Table 1 provides descriptive statistics and group comparisons for all socio-demographic variables.

The FMP sample was recruited via fibromyalgia self-help groups with the support of the German Fibromyalgia Patient Association. The healthy controls were a German convenience sample of volunteers without fibromyalgia that were recruited using a snowball sampling approach to garner a sample with varying ages. Recruitment took place

Table 1
Socio-demographic summary statistics for fibromyalgia patients and controls.

	Patients	Controls	F/χ^2
Age in years[a]	57 (10.4)	44 (17)	46.48***
Gender (female/male)[b]	96/1	110/13	8.28**
Religion[b]			0.18
Christian	85	110	
No religion	12	13	
Marital status[b]			22.81***
Married	63	62	
Living with partner	5	11	
Divorced	6	5	
Single	11	42	
Widowed	10	2	
Education (years)[b]			59.94***
9 or less	42	14	
10 or 11	42	35	
12 or more	8	68	
Advanced	6	6	

[a] Mean (standard deviation) and *F*-test.
[b] *N* and Chi-square test.
** $p < 0.01$.
*** $p < 0.001$.