Interpersonal rejection sensitivity predicts burnout: A prospective study

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ABSTRACT

We examined whether interpersonal rejection sensitivity (IRS) – the hallmark of atypical depression – prospectively predicted burnout, controlling for baseline symptoms, history of depressive disorders, antidepressant intake, gender, age, and length of employment (mean between-assessment duration: 21 months; $n = 578$; 74% female). IRS was related to a 119% increased risk of burnout at follow-up. Three of four burned out participants reported to be affected by IRS, or 2.5 times the rate observed in participants with no (or subthreshold) burnout symptoms. Our study highlights a dispositional factor in burnout's etiology also known to be a key component of atypical depression's etiology. The ontogenesis of individual vulnerabilities to burnout should be further examined in future research.

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1. Introduction

Burnout is usually regarded as a work-related stress syndrome made up of two main dimensions, emotional exhaustion and depersonalization (Maslach & Leiter, 2008; Schaufeli & Taris, 2005). Emotional exhaustion refers to a state of fatigue and helplessness that reflects the worker's response to unresolvable work stress; depersonalization is defined by motivation loss, withdrawal, and cynicism toward the job (Maslach, Schaufeli, & Leiter, 2001). Burnout has been associated with numerous professionally detrimental and health-threatening consequences, ultimately jeopardizing the individual's longevity (for a review: Ahola & Hakanen, 2014).

There is growing evidence that burnout is a depressive syndrome (Ahola, Hakanen, Perhoniemi, & Mutanen, 2014; Bianchi & Laurent, in press). It has been found that (a) individuals with burnout report as many depressive symptoms as clinically depressed patients (Bianchi, Boffy, Hingray, Truchot, & Laurent, 2013) and (b) no less than 90% of burned out workers meet the criteria for a provisional diagnosis of depression (Bianchi, Schonfeld, & Laurent, 2014). In addition, at an etiological level, burnout and depression have both been related to the experience of chronic (job) stress (Rydmark et al., 2006; Tennant, 2001; Wang, 2005). The exact nosological status of burnout, however, remains unclear.

Recently, it has been shown that burnout specifically overlapped with the atypical subtype of depression (Bianchi et al., 2014). Atypical depression is characterized by pathological sensitivity to interpersonal rejection (Butler, Doherty, & Potter, 2007; Parker et al., 2002; Quitkin, 2002; Tops, Riese, Oldehinkel, Rijsdijk, & Ormel, 2008), a trait-like, lifelong depressogenic factor (Boyce, Parker, Barnett, Cooney, & Smith, 1991; Liu, Kraines, Massing-Schaffer, & Alloy, 2014; Marin & Miller, 2013; Parker, 2007; Quitkin, 2002). Interpersonal rejection sensitivity (IRS) correlates with neuroticism, "the tendency to experience frequent, intense negative emotions associated with a sense of uncontrollability (the perception of inadequate coping) in response to stress" (Barlow, Ellard, Sauer-Zavala, Bullis, & Carl, 2014). IRS has been viewed as measuring a more focused, interpersonal component of that global personality trait (see Butler et al., 2007; see also Wilhelm, Boyce, & Brownhill, 2004). To our knowledge, only one study to date investigated the relationship between IRS and burnout longitudinally, showing that hypersensitivity to social rejection and stress fully mediated the link between attachment anxiety and future burnout (Ronen & Baldwin, 2010). This pioneering study, however, involved a follow-up of only 1 month and adopted a work-restricted approach of hypersensitivity to social rejection.

The aim of the present study was to assess the extent to which IRS, the most prevalent feature of atypical depression, prospectively predicts burnout, using an extended follow-up duration and a context-free approach to IRS. Based on previous research (Bianchi et al., 2014; Ronen & Baldwin, 2010), it was hypothesized that IRS is a vulnerability factor for burnout. Dispositional aspects of burnout have been less investigated than environmental ones

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(Alarcon, Eschleman, & Bowling, 2009; Swider & Zimmerman, 2010). The present study was intended to reduce this gap.

2. Materials and methods

2.1. Subjects and data collection

A survey involving 5575 schoolteachers was carried out in France in 2012 (April–June and November–December periods; see Bianchi et al., 2014). Among the teachers who completed the survey, 2854 (51%) left their email address to the investigators to be informed of the study's outcomes. These 2854 teachers were re-contacted in April 2014 and invited to complete the survey a second time on a voluntary basis. A total of 627 participants (22% of the re-contacted teachers) took part in the second wave of data collection (mean age at $T1$: 41 years old; 73% female). The mean duration of the follow-up was 21 months. Such a time frame is compatible with the development of burnout (e.g., Burke & Greenglass, 1995; Freudenberger, 1974).

2.2. Materials

Burnout was assessed with the emotional exhaustion (9 items) and depersonalization (5 items) subscales of the Maslach Burnout Inventory (MBI; Maslach, Jackson, & Leiter, 1996). The two subscales were combined to obtain a global burnout index ($\alpha_{T1} = 0.88$; $\alpha_{T2} = 0.89$) given our interest in burnout as a unified entity (Ahola et al., 2014; Bianchi et al., 2013). Originally, the MBI included a third component – personal accomplishment; however, the appropriateness of personal accomplishment as a dimension of the burnout construct has increasingly been rejected (Schaufeli & Taris, 2005), notably by the developers of the MBI (Maslach & Leiter, 2008). The MBI is the most frequently used instrument in burnout research.

IRS was assessed with a single, detailed item allowing responses in terms of presence/absence of the feature ("In your daily life, do you feel particularly sensitive to another person's judgment and criticism, with the recurrent fear of being rejected [this resulting, for instance, in stormy relationships, inability to sustain long-term relationships, problems at work, difficulties initiating contacts, pervasive fear of embarrassment]?"). Single-item measures have been shown to present obvious benefits for research in terms of reduced burden and costs, and ease of interpretation (Bowling, 2005). The use of single-item measures has been specifically recommended in the context of online studies, to reduce the attentional load and the duration of the surveys (Konrath, Meier, & Bushman, 2014). Participants additionally completed sociodemographic and health forms, ascertaining their history of depressive disorders, antidepressant intake, gender, age, and length of employment. Descriptive statistics and correlations between the main study variables are displayed in Table 1.

2.3. Data analyses

A binary logistic regression analysis was conducted with IRS at time 1 ($T1$) as the main predictor and cases of burnout at time 2 ($T2$) as the dependent variable. We controlled for $T1$ burnout symptoms, history of depressive disorders, antidepressant intake, gender, age, and length of employment in the analysis. Based on MBI developers' recommendations (Maslach et al., 1996), an MBI mean score of 4/6 was used as a cut point to discriminate cases of burnout from noncases. Participants who left their email ($n = 2854$) and those who did not ($n = 2721$) presented a similar burnout risk, $\chi^2(1) = 1.44$, $p > .20$. The proportion of burnout cases was also similar in participants who took part in the second wave of measurement ($n = 627$) and in those who did not ($n = 4948$), $\chi^2(1) = 0.28$, $p > .55$. Finally, the $T1$ 627-participant sample presented the same proportion of burnout cases as the $T2$ 627-participant sample, $\chi^2(1) = 0.26$, $p > .60$. Teachers identified as cases of burnout at $T1$ were excluded from data analyses, leaving a total of 578 participants. The characteristics of $T2$ cases and noncases of burnout are presented in Table 2.

Table 1
Means (M), standard deviations (SD), and correlations of the main study variables at time 1 and time 2 ($n = 578$).

	M	SD	1	2	3	4	5	6	7	M	SD
1. Burnout symptoms	2.06	0.99	–	.29	.20	.12	−.01	−.05	−.01	2.17	1.11
2. Interpersonal rejection sensitivity	.31	.46	.29	–	.12	.10	−.12	−.11	−.09	.32	.47
3. History of depressive disorders	.29	.46	.15	.10	–	.36	−.07	.13	.12	.32	.47
4. Antidepressant intake	.07	.26	.14	*.03*	.43	–	−.02	.10	.10	.07	.25
5. Gender	.26	.44	.10	−.06	−.09	−.06	–	.11	.12	.26	.44
6. Age	40.65	8.96	−.08	−.08	.14	.15	.12	–	.88	42.28	9.02
7. Length of employment	15.71	9.62	−.06	−.06	.13	.13	.14	.89	–	17.21	9.71

Notes: Entries on the left of the diagonal represent results at time 1; entries on the right of the diagonal represent results at time 2. The correlation coefficients appearing in italics are not significant ($p > .05$). Interpersonal rejection sensitivity, history of depressive disorders, and antidepressant intake were coded 0 for absence and 1 for presence; gender was coded 0 for female and 1 for male.

Table 2
Characteristics of time 2 cases and noncases of burnout.

	Burnout noncases ($n = 546$)		Burnout cases ($n = 32$)		p	Cohen's d
	M	SD	M	SD		
Burnout symptoms	2.04	0.99	4.43	0.38	.000	3.19
Interpersonal rejection sensitivity	.29	.46	.75	.44	.000	1.02
History of depressive disorders	.30	.46	.59	.50	.001	0.60
Antidepressant intake	.06	.24	.16	.37	.039	0.32
Gender	.27	.44	.16	.37	.171	–
Age	42.22	9.03	43.31	8.93	.505	–
Length of employment	17.17	9.67	17.97	10.47	.651	–

Note: Interpersonal rejection sensitivity, history of depressive disorders, and antidepressant intake were coded 0 for absence and 1 for presence; gender was coded 0 for female and 1 for male.

Table 3

Binary logistic regression analysis ($n = 578$). OR: odds ratio; HL test: Hosmer–Lemeshow goodness-of-fit test; T1: first wave of data collection; T2: second wave of data collection.

Predictors (T1)	Cases of burnout (T2; $n = 32$)			
	OR	95% CI	p	HL test
Burnout symptoms	2.78	1.69–4.55	.000	.91
Interpersonal rejection sensitivity	2.19	1.01–4.74	.048	
History of depressive disorders	2.12	0.93–4.83	.075	
Antidepressant intake	1.02	0.31–3.29	.980	
Gender	0.50	0.19–1.36	.175	
Age	1.05	0.97–1.14	.245	
Length of employment	0.97	0.90–1.05	.439	

3. Results

Burnout and IRS were found to positively correlate both at T1 and T2 (Table 1). The results from the binary logistic regression analysis are presented in Table 3. The best predictor of cases of burnout at T2 was burnout symptoms at T1. Compared to participants without IRS, those with IRS presented a 119% increase in the risk of being burned out. History of depressive disorders had a marginal effect on the outcome variable. The Hosmer–Lemeshow goodness-of-fit test was above .05, indicating a satisfactory fit for the tested model.

4. Discussion

Using a prospective design, this study revealed that IRS entailed a 119% increased risk of burnout at the 21-month follow-up, controlling for baseline symptoms, antecedents of depressive disorders, antidepressant intake, gender, age, and length of employment. This study provides further evidence of the role of IRS in the etiology of burnout (Ronen & Baldwin, 2010), using an extended follow-up duration and a context-free approach to IRS.

Our observations suggest that IRS is a long-term predictor of burnout, requiring specific attention in interventions designed to help burnout sufferers. In the present study, three of four burned out teachers reported to be affected by IRS – a proportion that is similar to those observed in patients with atypical depression (Quitkin, 2002). This represented more than 2.5 times the rate of IRS in teachers with no (or subthreshold) burnout symptoms.

Research on the role of individual differences in the development of burnout is still limited (e.g., Cañadas-De la Fuente et al., in press; Langelaan, Bakker, van Doornen, & Schaufeli, 2006), despite an increase in interest in recent years (for meta-analyses, see Alarcon et al., 2009; Swider & Zimmerman, 2010). By establishing a long-term link between IRS and burnout, our study highlights a dispositional aspect of burnout. Interestingly, one of the dimensions of burnout is "depersonalization," defined in this context as a coping strategy involving the distancing of oneself from one's work. Our findings are consistent with the idea that depersonalization and IRS represent co-dependent phenomena – the more one feels rejected, the more one becomes detached (Bianchi et al., 2014).

Our study has at least three limitations. First, by focusing on schoolteachers, we examined an occupation in which interpersonal relationships play a key role. In such an occupation, the importance of IRS in burnout's etiology may hence be increased in comparison with occupations involving fewer interpersonal interactions. Research on additional occupational groups is therefore needed. Second, we assessed IRS with a single, all-or-nothing item. Although single-item measures are acceptable for assessing such constructs (see Bowling, 2005; see also Hoeppner, Kelly, Urbanoski, & Slaymaker, 2011; Lefèvre et al., 2012; Nichols & Webster, 2013; Rohland, Kruse, & Rohrer, 2004; Wanous, Reichers, & Hudy, 1997), many investigators prefer multi-item questionnaires based on Likert-like scales (Tops et al., 2008). Third, the attrition rate was relatively high in this study. However, the final sample and the complete sample presented similar proportions of burnout cases, suggesting that the participation in the second wave of data collection was not burnout-dependent.

Importantly, the present study can be considered, at least in part, a replication study. Replication is a cornerstone of the scientific method, and the lack of replication studies is regularly lamented by scientists, particularly in psychology research (Klein et al., 2014; Winerman, 2013; Yong, 2012). This work contributes to giving replication studies a greater place in the psychology literature.

5. Conclusions

This study suggests that IRS is a vulnerability factor for burnout in the long run. Our findings are consistent with the hypothesis that burnout shares features with atypical depression. Future research should specifically focus on the ontogenesis of dispositional contributors to burnout.

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