Editorial

Psychotherapy and Psychosomatics

Psychother Psychosom 2010;79:65–72
DOI: 10.1159/000270914

Received: January 30, 2008
Accepted after revision: May 20, 2009
Published online: December 24, 2009

Chronic Embitterment and Organisational Justice

Tom Sensky

Department of Psychological Medicine, Imperial College, and Occupational Health Department, West London Mental Health NHS Trust, Southall, UK

There has been a substantial increase in recent years in the incidence of stress-related sickness absence from work. In the United Kingdom during 2005–2006, an estimated 10.5 million working days were lost through stress, depression or anxiety caused or made worse by work, equivalent to an annual loss of 0.45 days for every worker [1]. The International Labour Organisation has estimated that the cost of stress amounts to over 10% of Britain's gross national product. The burden of sickness absence due to stress is likely to be similar in other countries of the European Union, in North America, and also further afield.

A major problem in interpreting such data, and in devising appropriate interventions, has been the very broad, and imprecise, definitions of stress. Stress may lead to the onset of common psychiatric disorders, notably depression and anxiety. However, work-related stress may lead to sickness absence even when no formal psychiatric diagnosis is present. Characterising circumstances when this may occur is important both in public health terms and to develop focused interventions. One well-known example of a type of work-related stress associated with sickness absence is burnout. Recently, there have been 2 papers published in *Psychotherapy and Psychosomatics* on post-traumatic embitterment disorder (PTED) [2, 3]. It has been argued that this should be considered a new psychiatric diagnosis [2]. This article will briefly review the key features of embitterment, compare and contrast this newly reported condition with burnout and with some established psychiatric diagnoses, outline some organisational concepts likely to be relevant, and comment on the diagnostic utility of embitterment. For reasons outlined below, the condition will be described as *chronic embitterment*, rather than post-traumatic embitterment syndrome.

Features of Chronic Embitterment

Michael Linden, who first described post-traumatic embitterment, has defined it as: 'an emotion encompassing persistent feelings of being let down, insulted or being a loser, and of being revengeful but helpless' [2]. According to the diagnostic criteria of the syndrome, people experience embitterment in response to *a single exceptional negative life event*, which is regarded as the cause of the embitterment. Those experiencing embitterment report repeated intrusive memories of the critical event, and *blame themselves for the event, for not having prevented it, or for not being able to cope with it* [2]. Although there is considerable comorbidity between embitterment and other common psychiatric disorders, notably major depression, dysthymia and generalised anxiety disorder [3], the condition is characterised by a combination of features which do not commonly occur together in these other disorders – anger, rumination, helplessness and appraisals of injustice, all focused on the cause of the embitterment.

The author reports no conflicts of interest.

KARGER

Fax +41 61 306 12 34
E-Mail karger@karger.ch
www.karger.com

© 2009 S. Karger AG, Basel
0033–3190/10/0792–0065$26.00/0

Accessible online at:
www.karger.com/pps

Tom Sensky, PhD, FRCPsych
Department of Psychological Medicine, Imperial College
Occupational Health Department, West London Mental Health NHS Trust
Uxbridge Road, Southall, Middlesex UB1 3EU (UK)
Tel. +44 20 8354 8919, Fax +44 20 8244 9917, E-Mail t.sensky@imperial.ac.uk

Clinicians working in occupational health readily recognise this syndrome when it is described to them, and can easily recall people they have assessed who presented with it. This not only supports the face validity of the syndrome, but also suggests that it might be widely prevalent, as Linden has suggested [4]. Another feature of embitterment is the burden it often places on employers (see 'Organisational perspectives'), and it may be that the syndrome is recognised so readily because those who present with it are conspicuous among patients presenting to occupational health for the time and effort they demand. Clinical observation suggests that 2 of Linden's proposed diagnostic criteria may not be present in all cases. One criterion is that people blame themselves for the event [2]; this will be commented on later. Secondly, Linden has proposed that there is a single exceptional life event identified as precipitating the onset of the syndrome [2]. However, in some cases, rather than a single event, there appears to have been a series of adverse events, of a similar nature, which have had a cumulative effect. To include such cases within the syndrome, it is possibly more accurate to refer to the syndrome as chronic embitterment, rather than as a *post-traumatic* embitterment disorder. Further research is needed to clarify this.

Similarities with Post-Traumatic Stress Disorder

It has been proposed that PTED shows some similarities to post-traumatic stress disorder (PTSD) [2, 5]. In particular, both have been described as 'reactive disorders', arising in response to particular stressors. However, in the case of PTSD, this has become increasingly questionable. In particular, the symptoms of PTSD can arise even in the absence of a severe life-threatening event, and can occur even in the absence of any history of such events, in people who have other psychiatric diagnoses [6]. A recent editorial has suggested that: 'by narrowing a physician's analysis to a single event, a PTSD diagnosis may downplay or even ignore crucial pathogenic features that are found in the broader context of a patient's personality, developmental history, and situational context' [7].

The same is probably true of PTED. On the one hand, as Linden et al. [4] have acknowledged, there is likely to be disagreement among clinicians and others as to what constitutes *a single exceptional negative life event which precipitates the onset of the illness*, one of the core diagnostic criteria of PTED [2]. On the other hand, focussing predominantly on a single event as the precipitant of the embitterment disorder runs the same risk as noted above for PTSD, of playing down the individual and contextual factors also likely to be important aetiologically, as they are in PTSD [8]. Taken together, these factors again support naming this syndrome chronic embitterment, rather than post-traumatic embitterment.

Consistent with this, previous studies have reported symptoms of PTSD among employees who have been bullied, although many cases failed to fulfil the complete criteria for PTSD, particularly because of the nature of the trauma [9–11]. With the benefit of hindsight, it is likely that these cases fit the diagnosis of chronic embitterment.

Lessons Learned from Burnout

Burnout is a state apparently characterised by emotional exhaustion, depersonalisation and a perceived lack of personal accomplishment [12, 13]. Superficially, there appear to be considerable similarities between burnout and chronic embitterment.

Both conditions commonly result from work-related stress. Although chronic embitterment can occur in the context of any human relationship that has 'gone wrong' [4], it appears to be most widely prevalent in work settings. Similarly, burnout is most commonly encountered among those who care for others, either professionally (such as teachers or healthcare professionals) or personally (such as families or carers). By the time embitterment is diagnosed, it is usually associated with a long period of sickness absence [4], and similarly, burnout predicts absence from work [14]. Both conditions appear to arise from a combination of contextual factors and individual characteristics or vulnerabilities.

Associations have been reported between burnout and personality traits [15]. However, such associations with generic and stable personality characteristics are likely to be so non-specific as to be unhelpful, either in understanding the origins of the condition or in designing appropriate interventions. Such personality traits appear to be less important than work-related factors in the aetiology of burnout [16]. Of potentially more interest is the finding that burnout among healthcare professionals is related to 'stress of conscience', where those affected find themselves unable in their work to reach the high standards they believe they have a duty to meet [17]. Similarly, burnout is more common when discrepancies exist between the values of the affected individual and the or-

ganisation employing him or her [18]. These are examples of the application of the social-cognitive model of personality, which emphasises the importance of manifestations of specific aspects of personality in particular circumstances or contexts, rather than relying on stable traits [19, 20]. Similarly, people who develop chronic embitterment commonly hold strong personal beliefs related to their work and their contribution to society, and violation of such strongly held personal beliefs is said to underlie chronic embitterment [4]. Further investigations, perhaps using the social-cognitive model of personality, are likely to be productive.

If Burnout Is Not Part of Standard Psychiatric Classification, Should Chronic Embitterment Be?

Linden [2] has proposed that PTED should be considered as a new psychiatric diagnosis. Here too, the comparison with burnout is perhaps helpful.

Despite a burgeoning literature, there appear to have been few if any clinicians or researchers making a robust case for burnout to be included in the standard psychiatric classifications. However, this highlights a major difference between burnout and chronic embitterment. The most commonly used screening instrument for burnout, the Maslach Burnout Inventory, was not based on clinical observation nor derived from a theoretical model, but developed statistically from an arbitrary set of items [16, 21]. It is therefore perhaps not surprising that the precise nature of burnout remains unclear. Most researchers appear to agree that exhaustion is a key feature, but the status of depersonalisation and lack of accomplishment as integral components of burnout remain disputed [16, 22].

By contrast, the features of PTED were initially recognised by clinical observation [2, 4]. Chronic embitterment is definitely seen in clinical practice. The question is: what are the similarities and differences between the features of chronic embitterment and those of common psychiatric disorders? If chronic embitterment has distinctive features, this could add further support to its claim as a new psychiatric diagnosis.

Chronic Embitterment – Distinctive Features?

The hallmark features of chronic embitterment, shown by the vast majority of those who present with the disorder, are intrusive thoughts and memories, negative mood, expressed perceptions of injustice and embitterment itself [4]. While this combination of features is not found in other psychiatric disorders, it is of interest to examine whether the properties of these individual features might also be distinctive in chronic embitterment. This applies particularly to intrusive thoughts. Linden [2] has suggested that the intrusive thoughts in PTED are similar to those found in PTSD. It is important to discriminate between flashbacks and ruminations, both of which occur in PTSD [23]. If Linden is correct that chronic embitterment is usually precipitated by a single event, then one might expect flashbacks to occur in PTED also. However, if the development of embitterment is cumulative, at least in some cases, flashbacks would be expected to be less common. It may be significant that in the basic descriptions of the embitterment disorder, there does not appear to have been any explicit reference to flashbacks specifically.

Ruminations occur in a variety of psychiatric disorders, notably depression and anxiety as well as PTSD [24]. Ruminations are also commonly associated with anger [25, 26]. Depression, anxiety and anger can all be associated with embitterment [3]. It is therefore of interest to consider whether ruminations occurring in embitterment have any distinctive features. One potential difference between ruminations in embitterment and those in depression or anxiety is that in the former, the focus of the ruminations appears to be on the events or circumstances giving rise to the embitterment, while in the latter, rumination may focus on the symptoms of the disorder (in other words, 'worrying about worrying') [24]. Linden has noted that his patients with PTED regard their ruminations in a positive way, in that they consider it important not to forget the cause(s) of their embitterment. This on its own is not unusual; some people who are depressed, anxious, or even angry, consider that rumination will benefit them [27, 28]. Previous research suggests that the persistence of rumination is associated with negative mood states and with impaired problem solving [29, 30]. In chronic embitterment, as in other disorders, this may contribute to the persistence of the condition.

As already noted, one of the other characteristics of PTED noted by Linden (and listed as a diagnostic criterion) is that patients blame themselves for the event causing the embitterment, or for not having prevented it [2]. This is a curious observation, and certainly worthy of further investigation, because the combination of self-blame and rumination is found in depression, but chronic embitterment appears to be distinct from depression. Anecdotal evidence suggests that at least some of those who present with chronic embitterment focus their blame

on others rather than on themselves – on their managers or superiors, to whom the events causing the embitterment are commonly attributed. This is consistent with anger being a predominant emotional response in embitterment, as well as with the observation that people who are embittered have an overwhelming sense of injustice, usually accompanied by frustration and even helplessness when thinking about how to resolve the situation. The constellation of features of chronic embitterment may therefore be even more distinctive than has been described to date.

Chronic embitterment has behavioural manifestations that also appear distinctive from those of other psychiatric diagnoses. People who are embittered often attempt to engage others in their problems, particularly those others whom they perceive as having caused the problems, or as having potential influence over the solutions. Such attempts to engage others are not features of depression or of PTSD, and they have implications for how managers and organisations should respond to embittered employees (see 'Organisational perspectives').

Organisational Perspectives

As noted above, a strong belief that one's manager or employer has behaved unjustly or unfairly is a key belief in people who show chronic embitterment. Therefore, implicit in the experience of chronic embitterment is a perceived failure of organisational justice [31]. In the individual case, events which have contributed to the development of the chronic embitterment have outcomes that are perceived to be unjust (these are perceived failings of *distributive* justice). Clinical experience suggests that those who show chronic embitterment also perceive injustice or unfairness in the procedures and processes which led to these outcomes (this is termed *procedural* justice), and also in their own treatment by the organisation or by their managers (this represents perceived failure of *interactional* justice). Research evidence indicates that each of these elements of organisational justice can make an independent contribution to adverse work outcomes, such as job satisfaction, and work performance [31]. Research to understand how these elements contribute to the experience of chronic embitterment could, at an organisational level, inform the development of appropriate policies and procedures aiming to reduce the risk of employee embitterment becoming chronic. At the level of the embittered employee, the results of such research would not only contribute to more comprehensive formulation of the problems, but could also inform the development of appropriate interventions.

Another important organisational concept likely to be relevant to chronic embitterment is the psychological work contract [32]. This suggests that employees have beliefs about what they have been promised by the organisation for which they work, and what they are expected to contribute to the organisation in return. From the employee's perspective, the contract includes values and aspirations which the employee assumes that the organisation shares. There is also an assumption of reciprocity – if the employee contributes more, he or she expects more from the organisation [33]. Two main types of reciprocity have been suggested. In *creditor ideology*, the employee contributes more in the expectation of greater future rewards from the organisation, whereas in *reciprocation wariness*, the employee is concerned about being exploited by the organisation and is cautious about being too generous towards it [34]. The crucial point (and one likely to be amenable to organisational intervention) is that the psychological work contract is hardly ever made explicit, and hence not subject to discussion or negotiation.

The psychological work contract, as just described, has been identified in a wide variety of different types of organisation. Beliefs typical of a strong psychological work contract are readily apparent in organisations with a strong public service ethos, such as health or social services, and those which are hierarchical, such as the military. Much of the relevant literature concerns the reciprocal contract between employee and employer, but in some jobs, there may be an important added dimension, concerning what the employee expects of his actual job, rather than the job within a particular organisation. For example, a conscientious nurse will have expectations of her job which may be independent of the organisation in which she works. Such public service jobs are probably also associated with a strong creditor ideology, although published evidence for this appears to be lacking. Because the psychological work contract is assumed and not negotiated, a strong sense of professional identity, as is likely among healthcare professionals, teachers and others, may increase the risk of a mismatch between the individual's values and those of the organisation. While such professional identities are individual, they are moulded by societal influences [35]. It is intriguing to speculate whether organisations whose principal aim is to serve the public, or those with strong hierarchies, are more likely than others to give rise to chronic embitterment.

In the healthcare professions, the problems caused by the psychological work contract may be exacerbated by conflicts between professional and organisational values [36] and by the presence of non-clinical as well as clinical managers [37]; the former may have little appreciation of the values and aspirations of their clinician employees, and/or may minimise the importance of these values because of pressures from their own managers. Where the employee perceives the contract to have been breached, there is evidence that the greater the perceived breach, the more impaired job performance becomes [38]. Again, perceived breaches of the psychological work contract are highly likely in people with chronic embitterment, but research is needed to test this.

Embitterment and Unemployment

Given that the current global economic downturn has resulted in higher rates of unemployment in many countries, the question arises whether being made redundant from one's job can be a source of embitterment. In this context, it is perhaps no coincidence that in Linden's original paper [2], the case vignette concerned someone who lost his job through service reorganisation. Perceived breaches of the organisation's commitments involve 3 different types of attribution [38]. Employees are more likely than managers to attribute breaches to the organisation's deliberate disregard of its obligations (termed *reneging*), while managers more commonly attribute breaches to the organisation having to change its commitments due to changing economic or environmental factors (*disruption*) or to genuine misunderstandings between employee and organisation (*incongruence*). Presumably, embitterment is less likely to arise if an employee can view the loss of his or her job as due to disruption rather than reneging. Some individuals go to great lengths to pursue justice against a former employer, for example studying for and gaining a law degree in order to pursue their case more rigorously.

The focus of chronic embitterment appears to be on specific managers and/or a specific organisation. Hence, if a person loses one job, but gets another in a different organisation, the focus of chronic embitterment is expected to remain with the previous employer, rather than 'carrying over' to the new organisation. Moving to a new job in a new organisation represents a 'fresh start'. However, it is possible that people who have experienced chronic embitterment in one organisation are more vulnerable to future embitterment in another organisation. This remains to be tested by research, but for the time being, it is probably helpful for occupational health professionals to include questions about past embitterment in their initial interviews with new employees.

Possible Interventions

Linden et al. [4] have presented preliminary evidence for the benefits of wisdom therapy among those with PTED. In this context, wisdom is defined as an expert knowledge system – wise individuals demonstrate particular patterns of understanding and coping with life events. Preliminary results suggest that people with PTED are deficient in wisdom, operationally defined, particularly when applied to understanding and solving personal problems (as opposed to fictitious ones). However, these deficiencies in *wisdom-related performance* can be significantly reduced by specific training [4].

The discussion above suggests that reducing ruminations might be an appropriate initial focus for interventions. Wisdom therapy appears to be effective in this regard, and publication of a formal trial of wisdom therapy in a peer-reviewed journal will be of particular interest. Several other types of therapy should also be beneficial. Preliminary data support the effectiveness of meta-cognitive therapy in treating anxiety and PTSD [39, 40]. Meta-cognitive therapy focuses on the processes of thinking, rather than the contents of thoughts. For people with embitterment, the focus would be on their rumination, particularly on their beliefs and experiences about continuing to ruminate. Similarly, mindfulness-based cognitive therapy, which combines cognitive techniques with mindfulness meditation, is effective in treating depression and anxiety [41–43], and would be expected to offer benefits for those with embitterment. In acceptance and commitment therapy, which has been applied to the treatment of depression, anxiety and PTSD [44, 45], an important aim of the therapy is to work towards accepting things as they are. In chronic embitterment, this would involve accepting the cause(s) of the embitterment without feeling compelled to pursue the correction of the injustices involved. Well-being therapy might also be expected to offer benefit, again by shifting the embittered person's focus away from the ruminations and the cause and consequences of the embitterment [46]. The extent to which these therapies are effective in the overall management of chronic embitterment awaits further research.

Whatever individual interventions are shown to be successful for the person with chronic embitterment, it is

also important that these should not detract from the pursuit of appropriate interventions elsewhere, at an organisational level and with individual managers. For example, embittered individuals commonly engage in lengthy interviews and/or correspondence about the cause(s) of their embitterment. It is not unusual, prior to an interview with someone experiencing chronic embitterment, to receive a detailed dossier of events, claims and counterclaims. At an initial interview with someone unfamiliar with their situation, those who are chronically embittered are quite likely to wish to go into considerable detail about their circumstances and the causes of the embitterment. Finding the optimal response to this can sometimes be difficult. Those interviewing the embittered person may consider that listening to his or her story will be construed as being empathic. However, this approach risks serving to reinforce the embittered person's ruminations, which can in turn lead to escalation of the behaviour. As a result, people with chronic embitterment can take up disproportionately large amounts of time and effort from their organisation and from occupational health clinicians. To know whether this is another characteristic of chronic embitterment requires further research. If so, it will be of interest to also investigate the basis of the embittered person's perceived need to give listeners full details of the embitterment – is this due to rumination or is attributable to other causes? For example, if the individual firmly believes that his case is clearly just, the fact that others do not share this conviction may be attributed to not having presented the details of the case adequately.

Chronic Embitterment – A New Psychiatric Diagnosis?

Chronic embitterment is associated with considerable distress for the embittered person, having to take time away from work, and its presence can have substantial consequences for others, notably the embittered person's managers, employers and healthcare personnel involved in that person's care. Even at this early stage of research into embitterment, these features suggest that embitterment is a syndrome that has diagnostic utility [47]. It also appears that chronic embitterment involves a cluster of features that are not found together in any other psychiatric diagnosis. If this is confirmed by further research, this will go some way towards justifying consideration of chronic embitterment as a psychiatric diagnosis.

Two factors might possibly detract from this. First, there is some overlap of symptoms between chronic embitterment and depression, anxiety and PTSD, and comorbidities of these disorders are found with chronic embitterment. However, this does not preclude chronic embitterment as a separate psychiatric diagnosis. In the DSM classification, for example, there has been no assumption that diagnoses have to be completely discrete from one another, and comorbidities are permitted [48]. The second factor concerns cases where the cause(s) of embitterment and the consequent beliefs about injustice are not idiosyncratic to the person presenting with embitterment, but would be widely acknowledged and endorsed by others. For example, embitterment may be due to continuing harassment by a manager who is widely recognised as bullying his subordinates. In such cases, there would be widespread agreement that the person has indeed been unjustly treated. Under such circumstances, it might appear to add insult to injury to then give the embittered person a psychiatric diagnosis, because this might imply that the problem lies with that person, rather than with his or her situation. However, this implication is not valid. Episodes of depression or anxiety may arise because of work-related problems [49]. Even when it might be concluded in an individual case that an episode of depression is very unlikely to have arisen in the absence of particular events at work, it is still appropriate to diagnose the depressive episode as such, and treat it in the usual way. Embitterment should be considered embitterment even when it could be 'justified' by the cause of the embitterment being considered to be a genuine and legitimate injustice.

Returning to burnout, the features shared with chronic embitterment suggest that research might profitably focus on the relationship (or lack of a relationship) between them. Are they different end-points of a common set of work-related stressors? Do some people develop chronic embitterment, while others experience burnout? Or are there differences in the conditions giving rise to each? In this context, despite possible similarities in the circumstances giving rise to these conditions, it is striking that people with chronic embitterment find the energy and commitment to pursue their cause relentlessly, with little sign of the emotional exhaustion of burnout.

Implications and Prospects

Sickness absence from work through 'stress' is a major public health problem. Identifying reasons for this, and devising appropriate interventions, is therefore of considerable importance. Such causes and interventions are

likely to involve work organisations as well as affected individuals, because work-related stress usually results from complex interactions between individuals and their work circumstances. Research on chronic embitterment is still in its early stages, but current evidence suggests that this condition is certainly worthy of further study, not only as a potentially important cause of sickness absence, but also for its wider ranging effects on the individual and the organisation.

The recognition of the particular features associated with chronic embitterment represents a good start. Further research is required to characterise the condition more comprehensively; in particular, to explain how the key features of chronic embitterment relate to one another, the ways in which these relationships are different from those found in other psychiatric conditions, and especially how these relationships develop over time and are sustained. For example, if rumination precedes the development of the full-blown embitterment syndrome (as has been reported in PTSD [50]), this will have substantial implications for preventive work with individual employees, and could also inform the way employers deal with grievances at an organisational level. In general, further research will contribute not only to informing appropriate interventions, but would also provide additional support for chronic embitterment as a discrete psychiatric syndrome.

Key features of chronic embitterment, notably anger and rumination, have been associated with increased risks of adverse physical outcomes [51, 52]. Because of its chronic and intrusive nature, embitterment is very likely to contribute to allostatic load, an important emerging concept in psychosomatic medicine [53, 54]. While allostasis refers to the normal biological process of adaptation to stress, allostatic load *refers to the price the body pays for being forced to adapt to adverse psychosocial or physical situations* [55], in this context, the need to adapt to the chronic adverse effects of embitterment and its consequences. Evidence is emerging that the effect of chronic stress on physiological dysregulation is mediated by perceived stress [56]. As noted above, a key feature of chronic embitterment is the perception of injustice at work, and results of the Whitehall II study of British civil servants indicate that such perceived injustice significantly increases the risks of coronary heart disease [57]. Embittered individuals are likely to appraise their work as demanding, and such appraisal is associated with increased allostatic load [58]. Similarly, because the embitterment is intrusive and spills over into the person's life outside work, recovery from work is likely to be impaired, and this has also been associated with increased allostatic load [59] and even with increased risk of death from cardiovascular causes [60].

The evidence just cited is indirect – none of the studies outlined have focused on chronic embitterment directly. However, considered overall, these results reinforce the potential importance, for psychosomatic medicine as well as for clinical practice, of gaining further understanding of the characteristics and concomitants of chronic embitterment, and of interventions to alleviate it.

Acknowledgements

Numerous patients have contributed to my understanding of chronic embitterment; I am grateful for everything they have taught me. I am also grateful for the advice and guidance of Giovanni Fava, and for discussions with colleagues, particularly Janet Ballard.

References

1 Health and Safety Executive: Self-Reported Work-Related Illness and Workplace Injuries in 2005/06: Results from the Labour Force Survey. London, National Statistics Office, 2007.
2 Linden M: Posttraumatic embitterment disorder. Psychother Psychosom 2003;72:195–202.
3 Linden M, Baumann K, Rotter M, Schippan B: Posttraumatic embitterment disorder in comparison to other mental disorders. Psychother Psychosom 2008;77:50–56.
4 Linden M, Rotter M, Baumann K, Lieberei B: Posttraumatic Embitterment Disorder. Cambridge, Hogrefe and Huber, 2007.
5 Linden M, Baumann K, Rotter M, Schippan B: The psychopathology of posttraumatic embitterment disorders. Psychopathology 2007;40:159–165.
6 Bodkin JA, Pope HG, Detke MJ, Hudson JI: Is PTSD caused by traumatic stress? J Anxiety Disord 2007;21:176–182.
7 Rosen GM, Spitzer RL, McHugh PR: Problems with the post-traumatic stress disorder diagnosis and its future in DSM V. Br J Psychiatry 2008;192:3–4.
8 Ozer EJ, Best SR, Lipsey TL, Weiss DS: Predictors of posttraumatic stress disorder and symptoms in adults: a meta-analysis. Psychol Bull 2003;129:52–73.
9 Björkqvist K, Österman K, Hjelt-Bäck M: Aggression among university employees. Aggress Behav 1994;20:173–184.
10 Mikkelsen EG, Einarsen S: Basic assumptions and symptoms of post-traumatic stress among victims of bullying at work. Eur J Work Organ Psychol 2002;11:87–111.
11 Mol SSL, Arntz A, Metsemakers JFM, Dinant GJ, Vilters-Van Montfort PAP, Knottnerus J: Symptoms of post-traumatic stress disorder after non-traumatic events: evidence from an open population study. Br J Psychiatry 2005;186:494–499.
12 Freudenberger HJ: Staff burnout. J Soc Issues 1974;30:159–165.

13 Maslach C: Burned-out. Hum Behav 1976;5: 16–22.
14 Toppinen-Tanner S, Ojajarvi A, Vaananen A, Kalimo R, Jappinen P: Burnout as a predictor of medically certified sick-leave absences and their diagnosed causes. Behav Med 2005;31:18–27.
15 Zellars KL, Perrewe PL, Hochwarter WA: Burnout in health care: the role of the five factors of personality. J Appl Soc Psychology 2000;30:1570–1598.
16 Shirom A: Reflections on the study of burnout. Work Stress 2005;19:263–270.
17 Glasberg AL, Eriksson S, Norberg A: Burnout and 'stress of conscience' among healthcare personnel. J Adv Nurs 2007;57:392–403.
18 Siegall M, McDonald T: Person-organization value congruence, burnout and diversion of resources. Personnel Rev 2004;33: 291–301.
19 Cervone D, Shoda Y: The Coherence of Personality: Social-Cognitive Bases of Consistency, Variability and Organization. New York, Guilford, 1999.
20 Mendoza-Denton R, Ayduk O, Mischel W, Shoda Y, Testa A: Person X situation interactionism in self-encoding (I am...when...): implications for affect regulation and social information processing. J Pers Soc Psychol 2001;80:533–544.
21 Schaufeli WB, Taris TW: The conceptualization and measurement of burnout: common ground and worlds apart. Work Stress 2005; 19:256–262.
22 Cox T, Tisserand M, Tariz T: The conceptualization and measurement of burnout: questions and directions. Work Stress 2005; 19:187–191.
23 Speckens A, Ehlers A, Hackmann A, Ruths F, Clark D: Intrusive memories and rumination in patients with post-traumatic stress disorder: a phenomenological comparison. Memory 2007;15:249–257.
24 Nolen-Hoeksema S: The role of rumination in depressive disorders and mixed anxiety/depressive symptoms. J Abn Psychol 2000; 109:504–511.
25 Rusting CL, Nolen-Hoeksema S: Regulating responses to anger: effects of rumination and distraction on angry mood. J Pers Soc Psychol 1998;74:790–803.
26 Ray RD, Wilhelm FH, Gross JJ: All in the mind's eye? Anger rumination and reappraisal. J Pers Soc Psychol 2008;94:133–145.
27 Simpson C, Papageorgiou C: Metacognitive beliefs about rumination in anger. Cogn Behav Pract 2003;10:91–94.
28 Papageorgiou C, Wells A: Metacognitive beliefs about rumination in recurrent major depression. Cogn Behav Pract 2001;8:160–164.
29 Lyubomirsky S, Nolen-Hoeksema S: Effects of self-focused rumination on negative thinking and interpersonal problem solving. J Pers Soc Psychol 1995;69:176–190.
30 Lyubomirsky S: Why ruminators are poor problem solvers: clues from the phenomenology of dysphoric rumination. J Pers Soc Psychol 1999;77:1041–1060.
31 Colquitt JA, Conlon DE, Wesson MJ, Porter CO, Ng KY: Justice at the millennium: a meta-analytic review of 25 years of organizational justice research. J Appl Psychol 2001; 86:425–445.
32 Rousseau DM: Psychological Contracts in Organisations: Understanding Written and Unwritten Agreements. Thousand Oaks, Sage, 1995.
33 Eisenberger R, Armeli S, Rexwinkel B, Lynch PD, Rhoades L: Reciprocation of perceived organizational support. J Appl Psychol 2001; 86:42–51.
34 Eisenberger R, Cotterrell N, Marvel J: Reciprocation ideology. J Pers Soc Psychol 1987;53: 743–750.
35 Leiter MP, Jackson NJ, Shaughnessy K: Contrasting burnout, turnover intention, control, value congruence and knowledge sharing between Baby Boomers and Generation X. J Nurs Manag 2009;17:100–109.
36 Perkel LK: Nurse executives' values and leadership behaviors: conflict or coexistence? Nurs Leadersh Forum 2002;6:100–107.
37 Edmonstone J: Clinical leadership: the elephant in the room. Int J Health Plann Manage 2008, E-pub ahead of print.
38 Lester SW, Turnley WH, Bloodgood JM, Bolino MC: Not seeing eye to eye: differences in supervisor and subordinate perceptions of and attributions for psychological contract breach. J Organ Behav 2002;23:39–56.
39 Wells A, King P: Metacognitive therapy for generalized anxiety disorder: an open trial. J Behav Ther Exp Psychiatry 2006;37:206–212.
40 Wells A, Sembi S: Metacognitive therapy for PTSD: a core treatment manual. Cogn Behav Pract 2004;11:365–377.
41 Coelho HF, Canter PH, Ernst E: Mindfulness-based cognitive therapy: evaluating current evidence and informing future research. J Consult Clin Psychol 2007;75:1000–1005.
42 Evans S, Ferrando S, Findler M, Stowell C, Smart C, Haglin D: Mindfulness-based cognitive therapy for generalized anxiety disorder. J Anxiety Disord 2007;22:716–721.
43 Teasdale JD, Segal ZV, Williams JM, Ridgeway VA, Soulsby JM, Lau MA: Prevention of relapse/recurrence in major depression by mindfulness-based cognitive therapy. J Consult Clin Psychol 2000;68:615–623.
44 Orsillo SM, Batten SV: Acceptance and commitment therapy in the treatment of posttraumatic stress disorder. Behav Modif 2005;29:95–129.
45 Forman EM, Herbert JD, Moitra E, Yeomans PD, Geller PA: A randomized controlled effectiveness trial of acceptance and commitment therapy and cognitive therapy for anxiety and depression. Behav Modif 2007;31: 772–799.
46 Fava GA: Well-being therapy: conceptual and technical issues. Psychother Psychosom 1999;68:171–179.
47 Kendell R, Jablensky A: Distinguishing between the validity and utility of psychiatric diagnoses. Am J Psychiatry 2003;160:4–12.
48 American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders, ed 4, Text Revision (DSM-IV-TR). Washington, American Psychiatric Association, 2000.
49 Stansfeld SA, Fuhrer R, Shipley MJ, Marmot MG: Work characteristics predict psychiatric disorder: prospective results from the Whitehall II Study. Occup Environ Med 1999;56:302–307.
50 Michael T, Halligan SL, Clark DM, Ehlers A: Rumination in posttraumatic stress disorder. Depress Anxiety 2007;24:307–317.
51 Hogan BE, Linden W: Anger response styles and blood pressure: at least don't ruminate about it! Ann Behav Med 2004;27:38–49.
52 Mauss IB, Cook CL, Cheng JY, Gross JJ: Individual differences in cognitive reappraisal: experiential and physiological responses to an anger provocation. Int J Psychophysiol 2007;66:116–124.
53 Ryff CD, Singer B: Biopsychosocial challenges of the new millennium. Psychother Psychosom 2000;69:170–177.
54 Fava GA, Sonino N: Psychosomatic medicine: emerging trends and perspectives. Psychother Psychosom 2000;69:184–197.
55 McEwen BS: Allostasis and allostatic load: implications for neuropsychopharmacology. Neuropsychopharmacology 2000;22:108–124.
56 Glei DA, Goldman N, Chuang YL, Weinstein M: Do chronic stressors lead to physiological dysregulation? Testing the theory of allostatic load. Psychosom Med 2007;69:769–776.
57 Kivimaki M, Ferrie JE, Brunner E, Head J, Shipley MJ, Vahtera J, Marmot MG: Justice at work and reduced risk of coronary heart disease among employees: the Whitehall II Study. Arch Intern Med 2005;165:2245–2251.
58 Schnorpfeil P, Noll A, Schulze R, Ehlert U, Frey K, Fischer JE: Allostatic load and work conditions. Soc Sci Med 2003;57:647–656.
59 von Thiele U, Lindfors P, Lundberg U: Self-rated recovery from work stress and allostatic load in women. J Psychosom Res 2006;61: 237–242.
60 Kivimaki M, Leino-Arjas P, Kaila-Kangas L, Luukkonen R, Vahtera J, Elovainio M, Harma M, Kirjonen J: Is incomplete recovery from work a risk marker of cardiovascular death? Prospective evidence from industrial employees. Psychosom Med 2006;68:402–407.