

Detection of Feigned Burnout Symptoms Using Standard Clinical Questionnaires

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Abstract

Objective: The aim of the present study was to explore whether commonly used clinical scales are able to detect malingered burnout.

Methods: The Maslach Burnout Inventory—General Survey (MBI-GS) and the Symptoms Checklist 90 (SCL-90) were administered to four groups. In the first group, healthy participants were asked to fill out the questionnaires honestly ($n = 20$). The second group consisted of healthy participants who were instructed to malingering a burnout ($n = 19$). In the third group, participants were not only asked to feign a burnout, they were also told not to exaggerate their symptoms ($n = 20$). The fourth group consisted of people with “burnout” symptoms who were recruited through response on a “burnout” website ($n = 20$).

Results: Participants in the two malingering groups reported more symptoms on the two scales than either the honest responders or the “burnout” patients. Patients with “burnout” reported more symptoms than the honest responders.

Conclusion: This pattern suggests that overendorsement of items on scales like the MBI-GS and the SCL-90, may be an indication of malingered burnout (German J Psychiatry 2006; 9: 10-16).

Keywords: Malingering, burnout, psychopathology, survey

Received: 14.9.2005

Revised version: 6.10.2005

Published: 1.1.2006

Introduction

Burnout is characterized by elevated levels of exhaustion and cynicism and a reduction in professional efficacy (Maslach, Schaufeli, & Leiter, 2001). It is a relatively common condition. For example, in the Netherlands over 10% of the working population suffers from burnout caused by their work (Kant, Jansen, van Amelsfoort, Mohren, & Swaen, 2004). The prevalence of burnout is often interpreted as a result of a demanding and changing working environment (Posig & Kickul, 2003), especially for dedicated employees (Iacovides, Fountoulakis, Kaprinis, & Kaprinis, 2003; Schaufeli, Salanova, González-Roma, & Bakker, 2002). Although most burnout patients are truly suffering from their burnout symptoms, it has been suggested in the literature that some individuals may feign burnout to escape a dead-end job (Caldwell & Ihrke, 1994).

In this way, individuals may seek financial compensation or avoid work while retaining a monthly allowance. If these “external incentives” are the true motivation for feigning burnout, malingering would be an appropriate diagnosis. It should be noted here that a considerable number of people who claim to suffer from “burnout” are not suffering from burnout, but from a psychiatric condition such as depression or anxiety disorder (Roelofs, Verbraak, Keijsers, de Bruin, and Schmidt, 2005). These patients think they suffer from “burnout” because their symptoms resemble burnout symptoms. There is no reason, however, to assume that such patients are exaggerating their symptoms for external incentives.

To our knowledge, the detection of feigned burnout has not yet been studied. In forensic neuropsychology and psychiatry, different strategies have been proposed to detect malingering of cognitive impairments and clinical syndromes (Bordini, Chaknis, Ekman-Turner, & Perna, 2002; Morel,

1998). One such strategy entails the use of special malingering tests. These tests are based on the idea that malingerers do not know that genuine patients are able to perform normally on relatively easy cognitive tests. As a result, true patients will outperform malingerers on such tests (Merckelbach & Smith, 2003; Schagen, Schmand, de Sterke, & Lindeboom, 1997). Another, related strategy is to employ standard clinical instruments and to explore whether (instructed) malingerers exhibit an “over-the-top” style of item endorsement. The assumption made here is that malingerers have little knowledge of the genuine symptoms of brain damage and clinical diagnoses, and therefore perform worse on standard neuropsychological and clinical tests than bonafide patients (Haines & Norris, 1995). As Mittenberg, Patton, Canyock, and Condit (2002) have shown in their survey, assessing the probability of symptom exaggeration is a strategy that psychologists commonly use when the suspicion of malingering arises.

Apart from the fact that burnout as a syndrome is not a separate category in the major psychiatric classifications systems such as the DSM-IV (APA, 1994) or the ICD-10 (WHO, 1992), the ICD-10 criteria for neurasthenia can be used as a diagnostic guideline for assessing burnout. A standard measurement of burnout is the Maslach Burnout Inventory- General Survey (MBI-GS; Schaufeli, Leiter, Maslach, & Jackson, 1996). The MBI-GS measures the three components of burnout, analogous to the conceptualization of burnout (emotional exhaustion, depersonalization and reduction in professional efficacy). A recent study by Roelofs et al. (2005) confirmed the three factor structure of the MBI-GS. In this study the authors also found that in their sample of 95 clinical burnout patients, 17.89 percent received a co morbid diagnosis of mood disorder (12.66 %) or panic disorder (5.23 %). In further investigating the relation between general psychopathology and burnout, these authors correlated the MBI-GS scores to Symptom Checklist 90 scores (SCL-90; Arrindell & Ettema, 1986). Modest correlations were found between the three subscales of the MBI-GS and the subscales of the SCL-90, indicating a weak relation between the seriousness of burnout and complaints of general psychopathology.

As was described above, one method of detecting malingering is looking at “over-the-top” item endorsement on standard clinical questionnaires. It would not be too farfetched that when one wants to feign burnout symptoms, an “over-the-top” score on the MBI-GS will be obtained in comparison to clinical burnout patients. In this line, one can also assume that, on questionnaires relating to general psychopathology, a similar pattern would emerge. In the present study, we wanted to test whether standard clinical instruments (MBI-GS and SCL-90) can be used to differentiate between bonafide “burnout” patients and malingerers. We administered two questionnaires to four types of participants: honest responders, instructed malingerers, instructed malingerers who were asked not to exaggerate their symptoms, and “burnout” patients. The “burnout” patients were recruited via the Internet through a “burnout” website. Some of these patients may not be pure cases of burnout, but rather may suffer from a psychiatric disorder such as depression or anxiety disorder. It was hypothesized that malingerers would report more symptoms on both ques-

tionnaires than both patients and honest responders. Moreover, we expected that “burnout” patients would report more symptoms than honest responders.

Materials and Methods

Participants

There were 79 individuals who agreed to take part in this study: 59 healthy participants (16 men) and 20 “burnout” patients (4 men). The healthy participants were undergraduate students from Maastricht University, who received course credits for their participation. Their mean age was 22.5 years (SD= 2.0). The healthy participants were randomly allocated to three groups. In the first group, participants were asked to fill out the questionnaires honestly (n = 20). The second group consisted of participants who were instructed to malingering burnout symptoms (n = 19). In the third group, participants were instructed to feign burnout symptoms in a convincing way. Thus, they were warned not to exaggerate their symptoms (n = 20). The fourth group, the “burnout” patients, were asked to fill out the questionnaires honestly (n = 20). Their mean age was 22.8 years (SD = 2.6). They were recruited via the Internet, through a Dutch “burnout” website. “Burnout” patients between the age of 20 and 30 were invited to fill out the questionnaires. Scales were sent per e-mail to participants, who completed them while at home. The study was approved by the standing ethical committee of the Faculty of Psychology of Maastricht University.

Materials

All participants were asked to complete the Maslach Burnout Inventory – General Survey (MBI-GS) and the Symptoms Checklist 90 (SCL-90).

The MBI-GS (Schaufeli et al., 1996; Schaufeli & Van Dierendonck, 2000; Roelofs et al., 2005) is a self-report questionnaire designed to measure burnout. The 16 items are rated on a 7-point Likert Scale, ranging from 0 (never) to 6 (always). The MBI-GS consists of three dimensions: Exhaustion, Cynicism, and Professional efficacy. Exhaustion is tapped by 5 items, (e.g., “I feel burned out from my work”). The second dimension, Cynicism, is also measured with five items (e.g., “I have become less enthusiastic about my work”, and “I have become more cynical about whether my work contributes anything”). The other six items measure Professional efficacy (e.g., “I feel I am making an effective contribution to what this organization does”). It is assumed that heightened scores on the Exhaustion and Cynicism scales and a low score on the Professional efficacy dimension are indicative for burnout.

The SCL-90 (Arrindell & Ettema, 1986) is a self-report questionnaire that consists of 90 items measuring a broad range of psychopathological symptoms, tapped by 8 separate

scales. These scales are Agoraphobia (AGO; 7 items), Anxiety (ANX; 10 items), Depression (DEP; 16 items), Somatic complaints (SOM; 12 items), Insufficiency in thinking and acting (IN; 9 items), Suspicion and interpersonal sensitivity (SEN; 18 items), Hostility (HOS; 6 items), and Sleep problems (SLE; 3 items). The remaining 9 items of the SCL-90 are miscellaneous items, since they cannot be categorized in one of the eight scales. Illustrative SCL-90 items are “feeling anxious” (from the anxiety scale) and “Having a feeling of emptiness” (from the depression scale). Items are rated on a 5-points Likert Scale (anchors: 1 = not at all and 5 = very much). Scores are summed to obtain a total SCL-90 score, which is seen as a general index of self-reported psychopathology.

Procedure

Healthy participants were tested individually in a quiet laboratory room at Maastricht University. Upon arrival in the lab, participants filled in the informed consent form. For the “burnout” patients, informed consent forms were sent via e-mail together with the two questionnaires. Patients suffering from “burnout” were recruited via the Internet. This was done through a website specifically designed to provide “burnout” patients with information on the burnout syndrome. It should be noted here that a number of Dutch universities recruit “burnout” patients for their research through this website. As mentioned above, both honest responders and “burnout” patients were instructed to fill out the questionnaires honestly. Participants in the malingering group were provided with a short scenario about a bus driver who decides to malingering burnout because of low job satisfaction. They were asked to imagine being in a similar situation whilst filling out the questionnaires. These instructed malingerers were also informed about key features and symptoms of burnout. Participants in the warned malingering group received the same scenario and instructions, but were explicitly warned not to exaggerate their symptoms.

Statistical Analyses

First internal consistencies were calculated for the different subscales of the MBI-GS and the SCL-90 (using Cronbach’s α). We used one way Analyses of Variance (ANOVA) with a priori contrasts to find out if the scores on the two questionnaires differed between the four groups. To control for multiple comparison testing, alpha was set at 0.01. Three Discriminant Function Analyses (DFA) were conducted with scores on the MBI-GS, the SCL-90, and the scores of both questionnaires combined as independent variables, and conditions as dependent variables. DFA is a useful method to build a predictive model of group membership based on observed characteristics of each case. DFA uses variables or a set of variables, to predict group membership (e.g., the percentage of participants correctly classified to their actual group), as well as the probability with which an individual will be classified correctly.

Results

Internal Consistencies

Internal consistencies (Cronbach’s α) were computed for each of the 3 scales of the MBI-GS, as well as for the 8 scales of the SCL-90. The internal consistencies of all scales were satisfactory. That is, all Cronbach alpha coefficients exceeded the value of 0.80. Internal consistencies for the MBI-GS subscales were 0.95 (exhaustion), 0.86 (cynicism), and 0.85 (professional efficacy). The internal consistencies of the SCL-90 subscales were 0.82 (AGO), 0.91 (ANX), 0.96 (DEP), 0.92 (SOM), 0.89 (IN), 0.93 (SEN), 0.82 (HOS), and 0.85 (SLE). The internal consistency of the total SCL-90 was 0.87.

Differences in scores among the four groups

Maslach Burnout Inventory-General Survey (MBI-GS)

ANOVA’s revealed significant differences between the four groups on the three scales of the MBI-GS (all F ’s (3,75) > 60, all p ’s < 0.001). The mean scores and standard deviations of the four groups are presented in Table 1, together with the significance of contrasts. A priori contrasts showed that relative to participants in the three other groups, the honest responders had lower scores on the exhaustion and cynicism subscales [t (75) = -20.43, p < 0.001 and t (75) = -12.84, p < 0.001]. On the professional efficacy subscale, this subgroup had higher scores than the other subgroups (t (75) = 11.48, p < 0.001). Non-warned malingerers had significantly higher scores on the exhaustion subscale than either warned malingerers (t (75) = 3.12, p = 0.003) or “burnout” patients (t (75) = 7.12, p < 0.001). In addition, warned malingerers had significant higher scores on this subscale than “burnout” patients (t (75) = 6.21, p < 0.001). As for the cynicism subscale, non-warned malingerers had higher scores than had “burnout” patients (t (75) = 3.73, p < 0.001). There were no statistically significant differences between the non-warned and warned malingerers (t (75) = 1.91, p = 0.60) and between the warned malingerers and “burnout” patients for this scale (t (75) = 1.84, p = 0.69). As for the professional efficacy subscale, non-warned malingerers had lower scores than “burnout” patients (t (75) = -7.83, p < 0.001). Warned malingerers, in turn, had lower scores on this scale than “burnout” patients (t (75) = -4.93, p < 0.001). The mean scores on the professional efficacy subscale between warned and non-warned malingerers was significant (t (75) = -2.96, p = 0.004).

Table 1. Mean test scores and standard deviations on the MBI-GS and the SCL-90 subscales for healthy controls, instructed malingerers, instructed and warned (+ W), and “burnout” patients. Standard deviations are given between parentheses. It is assumed that heightened scores on the Exhaustion and Cynicism scales and a low score on the Professional efficacy dimension are indicative for “burnout”. All ANOVA’s were significant at $p < 0.001$. A priori contrasts were calculated.

	Controls n = 20	Malinge n = 19	Malinge +W n = 20	“Burnout” n = 20	Direction Significance Contrast Differences
MBI-GS					
Exhaustion	1.10 (0.68)	5.39 (0.47)	4.74 (0.48)	3.47 (0.88)	MAL>MAL+W> BURN>CON
Cynicism	1.31 (0.70)	4.47 (0.81)	3.98 (0.67)	3.51 (1.00)	MAL = MAL+W≥BURN>CON
Professional Efficacy	3.64 (0.69)	1.13 (0.54)	1.71 (0.45)	2.66 (0.71)	MAL<MAL+W<BURN<CON
SCL-90*					
AGO	7.50 (1.00)	13.89 (4.98)	11.90 (3.82)	11.50 (4.12)	MAL=MAL+W=BURN>CON
ANX	11.55 (1.93)	30.05 (8.93)	22.85 (5.59)	22.4 (6.72)	MAL>MAL+W=BURN>CON
DEP	19.40 (2.89)	60.00 (10.54)	47.00 (12.34)	43.90 (12.00)	MAL>MAL+W=BURN>CON
SOM	15.50 (3.86)	35.95 (10.10)	25.60 (8.57)	25.95 (6.48)	MAL>MAL+W=BURN>CON
IN	12.30 (2.32)	31.95 (4.84)	26.50 (4.91)	25.10 (6.97)	MAL>MAL+W=BURN>CON
SEN	22.60 (3.36)	55.63 (13.35)	42.20 (6.76)	41.85 (10.59)	MAL>MAL+W=BURN>CON
HOS	6.90 (1.17)	15.74 (5.75)	11.30 (3.06)	11.70 (2.87)	MAL>MAL+W=BURN>CON
SLE	4.15 (1.10)	11.11 (3.20)	9.05 (2.65)	7.65 (3.67)	MAL=MAL+W≥BURN>CON
Total SCL-90	100.55(12.50)	252.32(44.68)	198.65(30.05)	190.05(39.68)	MAL>MAL+W=BURN>CON

Notes

* AGO = Agoraphobia, ANX = Anxiety, DEP = Depression, SOM = somatic complaints, IN = Insufficiency in thinking and acting, SEN = suspicion and interpersonal sensitivity, HOS = Hostility, SLE = Sleep problems

Symptoms Checklist 90 (SCL-90)

ANOVA’s showed significant differences between the four groups with regard to the total SCL-90 score as well as on all eight SCL-90 subscales [F ’s (3,75) > 9, all p ’s < 0.001]. Mean scores and standard deviations of the four groups are given in lower part of Table 1. Honest responders had the lowest scores on the total SCL-90 and all SCL-90 subscales, followed by warned malingerers and “burnout” patients. All comparisons between the honest responders and the three other groups were statistically significant with respect to total score and scores on all subscales (all p ’s < 0.001). No differences were found between warned malingerers and “burnout” patients (t (75) < 1, p > 0.05). With respect to total SCL-90 scores and subscale scores, non-warned malingerers had higher scores than the other participants, except for the agoraphobia (no significant differences relative to “burnout” and warned malingerers) and sleep subscales (no significant differences relative to warned malingerers).

Discriminant Function Analyses

Three discriminant function analyses were conducted to determine the proportion of participants that were correctly classified by using the MBI-GS and the SCL-90 scores separately, as well as by using a combination of both questionnaire scores. When using solely the MBI-GS for predicting

group membership, 84.8 % of the participants were correctly classified. “Burnout” patients were correctly classified in 80% of the cases. The exact percentages of correct classifications, by using the MBI-GS for each group separately, are shown in Table 2. When using solely the SCL-90 for the prediction of group membership, 69.6 % of the participants were correctly classified. The proportions of correctly classified participants for each of the groups separately are also presented in Table 2. When using a combination of the MBI-GS and SCL-90, 82.3% of the participants were correctly classified (see Table 2).

Discussion

The results of the present study suggest that the MBI-GS and, to a lesser extent, the SCL-90 are sensitive to exaggerating burnout symptoms. That is, non-warned malingerers reported more symptoms on both the MBI-GS and the SCL-90 than participants in the three other groups. Furthermore, warned malingerers reported more exhaustion, cynicism, and lower personal efficacy compared to the control (honest) group. In comparison to the “burnout” patients, warned malingerers reported more exhaustion and lower personal efficacy. A similar pattern was seen for the SCL-90 subscales, although group differences did not emerge for the agoraphobia and sleep disturbances subscales of the SCL-90.

Table 2. Discriminant Function Analyses classification results when using the MBI-GS, SCL-90 and both the MBI-GS and the SCL-90. The classification results are presented in % of participants of each condition which are correctly classified by using their results on the MBI-GS total score, SCL-90 total score, and results on both the MBI-GS and SCL-90 total score.

Predicted	Reality			
	Control	Malingering	Malingering + W*	"Burnout"
MBI-GS				
Control	100	0	0	5
Malingering	0	79	10	5
Malingering + W*	0	21	80	10
"Burnout"	0	0	10	80
SCL-90				
Control	100	0	0	15
Malingering	0	74	25	20
Malingering + W*	0	21	55	15
"Burnout"	0	5	20	50
MBI-GS and SCL-90				
Control	100	0	0	5
Malingering	0	74	25	5
Malingering + W*	0	26	70	5
"Burnout"	0	0	5	85

*W = warning

The mean MBI-GS scores for the "burnout" patients are well in line with earlier findings by Schaufeli and Van Dierendonck (2000) and Roelofs et al. (2005). An indication for burnout can be found by MBI-GS Exhaustion scores of ≥ 3.50 , Cynicism scores of ≥ 3.50 and Professional Efficacy of ≤ 2.60 . However, since MBI-GS subscale scores are described in either being high or low, with high Exhaustion, Cynicism and low Professional Efficacy as being indicative of burnout, one has to be cautious in interpreting these scores as "all-or-nothing" cut-off scores (Schaufeli & Van Dierendonck, 2000). Individuals in the "burnout" group scored significantly higher on all three MBI-GS subscales in comparison to normal control participants, a finding that understates the clinical utility of the MBI-GS in helping to identify the clinical diagnosis of burnout (although some of our patients may not have suffered from pure burnout).

In line with the findings on malingering mild traumatic brain injury by Erdal (2004), Johnson and Lesniak-Karpiak (1997), and Suhr and Gunstad (2000) it was found that adding an explicit "warning" statement about malingering detection improved participants' scores on the "Exhaustion" and "Professional Efficacy" scales and most of the SCL-90 scales (except for the "Agoraphobia" and "Sleep disturbance" subscales). That is, participants who received information on the key features and symptoms of burnout and who were also warned performed better on these scales than the participants who received the same burnout information but were not warned. To our knowledge this is the first study

that related this warning instruction to a specific clinical diagnosis, namely burnout.

The present findings suggest that individuals who score on standard clinical scales above the level of known clinical groups may feign their burnout symptoms. As a rule of thumb, when interpreting the MBI-GS scores of burnout patients as standard scores in terms of the normal probability curve an MBI-GS Exhaustion and Cynicism subscale score of more than two standard deviations above the mean and more than two standard deviations below the mean of the Professional Efficacy scores could be indicative of malingering. It should be noted that the use of normal probability distributions and standard deviations from standard scores in describing test results is a common technique in both (neuro-) psychology and psychiatry (see for example Hannay & Lezak, 2004). However, it would be wrong to label a patient as a malingerer solely on the basis of such extreme test scores (Bordini et al., 2002). Several other interpretations should be ruled out before an individual is diagnosed as a malingerer (e.g., a physical illness leading to fatigue or lack of concentration). Also, a malingerer must have a clear motive (e.g., financial incentives, problems at work) for feigning burnout symptoms and there should be other, compelling evidence for malingering (e.g., fatigue at work, but not during effortful leisure activities, etc.). Thus, extreme scores on standard clinical scales should be followed-up by several inferential methods, among which dedicated tests for malingering, before a patient is classified as a malingerer.

Note that our study has three limitations. Firstly, we recruited "burnout" patients through the Internet. One obvious disadvantage of this approach is that there are fewer possibilities to check characteristics of such participants. As mentioned before, it is likely that some of our "burnout" patients were not suffering from burnout, but were suffering from depression or anxiety disorder. The relatively high scores of the "burnout" patients on the SCL-90 suggest that some people who think they suffer from burnout are in fact suffering from a psychiatric disorder and may need professional help. Also, it is possible that the participants in the "burnout" group contained malingerers who were not really suffering from burnout symptoms. However, MBI-GS scores in this group were typical for "burnout" patients (Schaufeli & Van Dierendonck, 2000; Roelofs et al., 2005). Also, there are reasons to believe that the anonymous context of the Internet may not have detrimental effects on the validity of self-reports. A comparative analysis done by Gosling, Vazire, Srivastava, and John (2004) between internet questionnaires and traditional paper and pencil questionnaires found that internet findings generalize across presentation formats, are not adversely affected by non-serious or repeat responders, and are consistent with the findings from traditional (paper and pencil) methods. It should also be stated that the "burnout" patient group did not have any benefit in feigning their symptoms in this study.

Secondly, a related issue is that the “burnout” patients were administered the questionnaires electronically, while the other participants were given paper-and-pencil versions of the questionnaires. It is unlikely that this difference in presentation mode affected the results. For example, Bakker, Demerouti, and Schaufeli (2002) found no difference in on-line and paper-and-pencil MBI-GS scores.

A third limitation is that the current study relied on young adults (indicated by the mean age of 22.5 years of the honest, malingering and warned malingering participants, and 22.8 years of the “burnout” group). Thus, our findings cannot easily be generalized to older groups. On the other hand, more evidence is becoming available that it is possible for students and young employees to burn out during their study or at work. For example, Schaufeli et al. (2002) found that students even had slightly higher levels of burnout compared to the employees.

To our knowledge, this is the first study that addresses the issue of malingered burnout. Although our findings suggest that standard clinical tests may be useful in assessing malingered burnout, more research in this area is necessary. In particular, it would be important to develop test batteries that can be used as follow-up for evaluating suspicious classes of burnout symptoms.

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