Author's response to reviews

Title: Understanding burnout according to individual differences: ongoing explanatory power evaluation of two models for measuring burnout types

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Version: 2 Date: 29 April 2012

Author's response to reviews: see over
Dear Dr Pafitis,

We include the answers to the reviewers' questions.

We wish to thank the reviewers for the attention shown to our work and for their interesting contributions, which have allowed us to improve the quality of the manuscript. Literature references are given in square brackets and references to draft page and paragraph numbers are found in round brackets. Additions and changes made to the manuscript are highlighted in yellow.

Yours sincerely,

Jesus Montero-Marin, Psychologist, PhD
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Reply to reviewer's report 1

MS: 8632576886495503

Title (new): Understanding burnout according to individual differences: ongoing explanatory power evaluation of two models for measuring burnout types.

Version: 2 Date: 25 March 2012

Reviewer: Pedro Gil-Monte

Major Compulsory Revisions

Background.

1. Authors must clearly explain that they are evaluating by the BCSQ: burnout predictors or burnout symptoms? The paper has a serious theoretical and conceptual problem to state the differences between predictors vs. symptoms of burnout. This distinction is very confusing, and it must be clarified. The limitation coming from the background developed previously to the questionnaire. What is burnout? Is it a clinical or a contextual problem? As a consequence they are considering the phenomenon as a predictor of this same phenomenon. How can be clinical symptoms of burnout –i.e., subscales of BCSQ, predictors of clinical symptoms of burnout –i.e., subscales of MBI? On the contrary, if the BCSQ evaluates working conditions, the analyses are adequate. But, then, why the paper states that the BCSQ estimates clinical burnout? Are there any differences between the BCSQ and other questionnaires evaluating job stressors? According the design of this study, I think that the questionnaire evaluates subtypes of profiles tending to burnout, on the contrary that clinical subtypes of burnout.

2. In addition, How do the questionnaire differentiates between burnout and clinical burnout? How can we conclude by the questionnaire on these differences?

3. The study should offer some hypotheses on the expected relationships between independents and dependents variables; for example, overload and burnout symptoms. The review of the literature must be improved taking into consideration previous studies about job stressors and its relationships with job burnout.

Responses 1, 2 and 3.

As suggested by the reviewer, we explain in the Background section that, unlike the classic approach to burnout syndrome based on the description of individual standard symptoms [1,2] (page 3 paragraph 3), social exchange theory, the theory framework on which the operationalized proposal on which BCSQ is based, emphasizes the consideration that burnout is the result of a perception of lack of reciprocity in social exchange relationships [3-6] (page 3 paragraph 4). The level of dedication to tasks, as a response to distress created by this perception of lack of reciprocity, is the classification criterion by which the proposal is theoretically organized. This level is high in the profile referred to as frenetic (active coping), intermediate in the underchallenged profile and low in the worn-out profile (passive coping) [7] (page 4 paragraph 1). On the other hand, the BCSQ model incorporates a perspective that considers the syndrome not as a purely intrapsychic phenomenon, but as the result of a social practice in a specific cultural, economic and political context [8]. And this is because it attempts to reach a comprehensive understanding of the phenomenon when considering both the individual characteristics and the environmental stressors [9] (page 3 paragraph 4). BCSQ is also distinguished by the possibility it offers when it comes to describing different ways in which burnout is manifested, enabling specific interventions to be developed [10-13] (page 5 paragraph 1).

The dimensions of the model were developed by means of a documentary analysis of the qualitative content [7] of the cases reported through a methodology of clinical phenomenological analysis by Dr Faber of Columbia University [14-20] (page 4 paragraph 1). For this reason, despite the later psychometric development, the model is based on a clinical perspective. BCSQ does not attempt to differentiate between clinical and non-clinical cases of burnout; rather, it seeks to provide information on significant characteristics from a clinical point of view. And it does so because such characteristics arise spontaneously as sources of
psychological distress during reporting by patients affected by the syndrome during therapy [14-20] (page 5 paragraph 1). As we have included in our manuscript, these characteristics are modifiable properties through which the disorder is manifested differentially, and which need to be treated specifically during therapy owing to their special contributions to the configuration of the different profiles (page 5 paragraph 1). As the reviewer rightly states, these properties comprise antecedent factors for the classic symptoms through which burnout receives its standard definition and through which it has been referenced in the literature [21-35]. By way of a summary, the model presents clinical burnout subtypes as different ways of developing the disorder, based on the specific idiosyncrasy of each case, whose particular characteristics contribute to the development of a differential configuration through a particular medical history.

As the reviewer suggests, we have added to the Background section a series of references that review the correlations between the dependent and independent variables (page 5 paragraph 2), allowing a working hypothesis to be established. Generally, given that the “frenetic” profile is associated with the classic dimension of exhaustion [11-13], which is understandable if we consider the excessive workload experienced by this highly dedicated type of subject [15,21-25], it was established that the dimensions that characterize this profile (involvement, ambition and overload) could contribute to a greater extent than the others in the explanation of exhaustion. Given that the “underchallenged” profile is strongly related to the classic dimension of ‘cynicism’ [11-13], possibly owing to the subject’s lack of enthusiasm resulting from their negative appraisal of their work conditions [22,26-29], it was established that the dimensions characterizing this profile (indifference, boredom and lack of development) could contribute to a greater extent than the others in explaining cynicism. As the “worn-out” profile is strongly associated with the classic dimension of inefficacy, probably owing to subjects’ apathy and lack of commitment [11,22,30,31], accentuated by experiences of lack of control and of acknowledgement [32-35], it was established that the dimensions that characterize it (neglect, lack of control and lack of acknowledgement) could contribute to a greater extent than the others in explaining ‘inefficacy’. On the other hand, owing to the fact that the long BCSQ-36 model includes a larger number of factors than the short BCSQ-12 (only consisting of the dimensions of overload, lack of development and neglect), a hypothesis was established that the explanatory power of BCSQ-36 would probably be greater than that of BCSQ-12 in relation to the standard dimensions of exhaustion, cynicism and inefficacy.

**Method**

4. According the Participants section, the required sample was calculated as 427 participants, but the study sample are 409 participants, and the distribution on occupational categories did not fit to initial estimation; why?. How this misfit could affect on the results and conclusions?

**Response**

As the reviewer rightly states, the estimated sample size needed for the study was 427 subjects, with a population size of N=5493, assuming a confidence level of 95%, 80% power and a 3.5% margin for error. However, the final sample size was n=409 subjects, which, if the remaining parameters are constant, could raise the margin for error to 3.58%; in other words, it would be raised by 0.08% (figure estimated using the Epidat 3.1 statistical analysis software for tabulated epidemiological data). In general, the calculation of sample size is a reasoned process over which common sense should prevail, in addition to the restriction imposed by the reality that is being studied [36,37]. In this regard, we consider that the reduction in the sample size caused by the response rate was not sufficiently large as to cause a significant increase in the estimation error. Moreover, the study provides evidence with regard to the aims and the hypothesis initially put forward with the sample size finally achieved (page 10 paragraph 2). In other words, the results of the study may be interpreted adequately through estimates made with regard to the parameters and their corresponding confidence intervals [38]. The sample size influences the quality of estimates, which is reflected in the width of the corresponding confidence intervals and the power of the statistic contrast tests. This information in itself allows direct and reliable interpretation of the results, as the sample size in question does not change the sense of this interpretation [39, 40].

On the other hand, the different response rate obtained by occupational strata, the result of administration and service personnel being more participative than the other occupational groups, meaning that the sample did not reflect the exact percentage composition by stratum
and total population, is a limitation of this study when it comes to generalizing the results to the total population. This has been mentioned in the discussion section (page 10, paragraph 2).

5. The Methodology section must show some information about how many items there are in every subscale, and the Cronbach alpha values for all subscales of the BCSQ-36, and the BCSQ-12.

Respuesta

As suggested by the reviewer, we have included the number of items comprising each subscale of the BCSQ-36 and BCSQ-12 in the Measurements section (page 7, paragraph 2), in addition to the Cronbach alpha values acquired by each of the subscales in the study in the results section (Table 1), in order not to enlarge the section related to the description of both questionnaires disproportionately.

Results.

6. The presentation of the regression analyses should be improved. Table 1 can be split and integrate in Tables 2, 3 and 4.

Respuesta

As the reviewer suggests, the presentation of the tables has been improved with the incorporation of information from Table 1 into Tables 2, 3 and 4.

7. The authors must decide if they will take into consideration R2 (e.g., Cynicism equation) or AR2 (e.g., Efficacy equation).

Respuesta

As the reviewer rightly states, there was an erroneous lack of consistency in considering the predictive capacity of the BCSQ-36 and BCSQ-12 models, in the case of cynicism through the coefficient of discrimination, and in the case of efficacy through the adjusted coefficient of discrimination. We consider it important to present both values, as we have done, but when comparing both models, we take into account the adjusted coefficient of discrimination, as it is a better estimator of the percentage of explained variance, given that it takes into consideration the number of variables included in the equation, counteracting the incidence of accumulated random effects, making it particularly appropriate when it comes to comparing the predictive capacity of different models [41, 42]. Therefore, this has been reflected in the data analysis section (page 7, paragraph 4) and in the results section (page 9, paragraph 2) of the manuscript.

8. F values and df for regression equations must be supplied.

Response

As pointed out by the reviewer, the F values (df1 / df2) of the regression equations have been included in Tables 2, 3 and 4. In addition, despite not being required, the F values (df1 / df2) and significance associated with the increase in the adjusted multiple coefficient of determination (Δ-adj-R2y.123) are included when going from the short model provided by BCSQ-12 to the long model proposed by BCSQ-36, enabling the significance of the differences in the predictive capacity of both models to be estimated (data analysis, page 7, paragraph 7; results, page 9, paragraph 2).

9. Correlations values among all study variables must be supplied as a previous step to analyses regression.

Response
As suggested by the reviewer, the values of the bivariate or raw correlation between all the study variables have been included by means of Pearson’s r in a correlation matrix (Table 1). In order to avoid duplication in the presentation of results, we have removed the r values for correlation between the BCSQ subscales and each of the standard dimensions of the MBI-GS, previously presented in Tables 2, 3 and 4.

10. Results of regression models carried out by BCSQ-36 don’t fit to results of regression models carried out by BCSQ-36. For example, in Table 4 both Involvement and Overload were significant predictors of Efficacy (BCSQ-36), but Overload did not (BCSQ-12). How this misfit could be explained?

Response

Table 2 shows that the overload, lack of development and neglect variables of the BCSQ-12 contributed significantly to the explanation of exhaustion and cynicism; however, of these three variables in BCSQ-36, only overload contributed to that of exhaustion and only lack of development contributed to cynicism. This apparent inconsistency is the result of the control exerted by a number of variables over others when included together in the regression model. This effect can be understood better if we observe the values provided by the partial correlation coefficient ($R_{y3.12}$), which indicates the correlation between two variables when the effect of the other variables included in the equation is removed, and those provided by semi-partial correlation coefficients ($R_{y(3.12)}$), the square of which shows the increase in the coefficient of determination after including a specific variable in a model, partializing the influence of the other included variables [41,42]. Both coefficients indicate that, despite our observations of significant correlations on a bivariate level between the referred to independent and dependent variables, and generally between most of the variables under study, the lack of development and neglect variables in the BCSQ-36 regression model did not provide new information on exhaustion than that provided by the other variables. Likewise, no new information was provided by the overload and neglect variables on cynicism in the BCSQ-36 regression model. This is due, as previously stated, to the fact that the information that that could have been added in both cases to explain the variance in exhaustion in the former and cynicism in the latter was contained in the indifference, lack of acknowledgement and lack of control variables. These apparent inconsistencies did not occur in the models in relation to the efficacy dimension, given that in both BCSQ-12 and BCSQ-36 the overload and lack of development variables did not contribute significantly to expaining it (page 11, paragraph 3).

11. If the BCSQ evaluates burnout symptoms -because it has been designed to evaluate burnout or clinical burnout-, then the relationships with the MBI dimensions must be tested by other procedures, as factor analysis, concurrent validity, correspondence analysis...

Discussion.

12. Now, in this section, the BCSQ dimensions are considered as job stressors, and in previous sections they were considered as symptoms of clinical burnout? How do explain this misfit? For example, “overload and lack of control were the ones that basically explained exhaustion, something which is coherent with the Karasek’s demand-control model...” (p. 8, #5 and p. 9), but they conclude that the MBI dimensions “do not facilitate differentiation of the syndrome by means of clinical subtypes, something that can be done with the BCSQ-36” (p. 9, #2). In addition, “and taken individually can constitute a brief typological definition of the syndrome”. Can be the overload considered as a dimension of burnout –i.e., a symptom, or it is a predictor?

Responses 11 and 12.

As we clarified in responses 1, 2 and 3 (and in the discussion section of the manuscript: page 12, paragraph 13; page 13, paragraph 1; page 13, paragraph 3) the BCSQ does not attempt to differentiated between clinical and non-clinical cases of burnout, but to provide information in the relevant characteristics from a clinical perspective, given that they are properties through which the disorder is developed and manifests differentially, configuring different profiles that should be intervened in a specific manner. These characteristics or properties of the BCSQ are considered antecedent factors or predictors of the classic symptoms, through which burnout receives its standard definition [21-35], and allow the different profiles and manifestations of the
syndrome to be differentiated better than with the classic symptoms, given that they provide a description of development of the disorder in medical history based on the individual idiosyncracy, which covers characteristics of the subject depending on environmental stressors. In this regard, overload, antecedent property characteristic of the “frenetic” burnout subtype, would be the result of an individual's negative appraisal of the work environment depending on individual characteristics when it comes to coping, and we have seen that it presents a high predictive power over the classic exhaustion dimension. Although evaluating the type of validity pointed out by the reviewer is beyond the scope of this study, given that this suggests we should compare the predictive capacity of the long and short versions of BCSQ operationalizations and the individual contribution of the dimensions that comprise them over the explanation of the standard dimensions through which burnout is classically defined, the convergent validity between the dimensions of BCSQ and MBI-GS can be deduced from the Pearson's r coefficient values used to assess the raw or bivariate associations between the study variables, as we have shown in the correlations matrix in Table 1.

Conclusions

13. p. 10, #3, “the BCSQ-36 and BCSQ-12 show great explanatory power compared to the MBI-GS” Why? The MBI dimensions were not considered predictors in this study.

Respuesta

This was an error in the wording of the manuscript. We have corrected the text by incorporating conclusions on the new reported information in respect of the differences in the explanatory power of both models (page 13, paragraph 3). Both BCSQ-36 and BCSQ-12 present great explanatory power over the standard MBI-GS, with that of the former being significantly greater, which is understandable when taking into account the fact that it incorporates more information related to the antecedents of the classic or standard symptoms of burnout.

14. p. 10, #3, “definition of burnout like that established using the BCSQ-36 and BCSQ-12 is a valid and useful tool for clinical evaluation of the syndrome and may provide a better understanding of the disorder as it is presented in each case, enabling the design of more specific treatment approaches” Why? According to study, the dimensions of BCSQ are predictors of burnout, on the contrary that burnout symptoms. Then, the BCSQ could be a valid and useful tool for organizational evaluation, and to identify work conditions to prevent the development of burnout.

15. p. 10, #3, “This perspective is more comprehensive than that provided by the classic MBI-GS and offers a more complete characterization of burnout by means of clinical sub-types” Why? The BCSQ evaluates the individual perception of work conditions –i.e., predictors of burnout- on the contrary that clinical symptoms of burnout.

Responses 14 and 15.

We have taken the reviewer's suggestions into account in the changes made to the discussion section: “A definition of the development of burnout like that established using the BCSQ-36 and BCSQ-12 is a valid and useful tool for organizational evaluation and to identify work conditions to prevent the development of burnout and may provide a better understanding of the disorder as it is presented in each case, enabling the design of more specific treatment approaches” (page 13 paragraph 3).

The explanation requested by the reviewer is added to the text: “This perspective is more comprehensive than that provided by the classic MBI-GS, given that it assesses the individual's perception of work conditions and enables a description to be made of the medical history of the development of the syndrome based on its particular idiosyncracy, providing a more complete characterization of burnout by means of clinical subtypes.” (page 13 paragraph 3).

16. Some questions remain without answer: How this study contributes to the advancement of knowledge?, How are the theoretical relationships between the independent variables and subtypes of burnout?, How to explain the burnout clinical subtypes and job stressors relationships?, How are theoretical relationships between BCSQ and MBI? Are the BCSQ...
dimensions job stressors (environmental variables), or are they clinical symptoms of burnout (individual variables)?

Response

With regard to how this work contribute to advancing the knowledge in the area under study, we have included in the background section an explanation that this work can contribute to the establishment of their possible differential usefulness of both typological models of burnout, long and short, providing understanding of the process by which the syndrome develops by means of the different burnout profiles (page 5, paragraph 3). Likewise, we have also included in the conclusions section of the manuscript (page 13, paragraph 3) an explanation that the differences observed in the relative weighting of the properties of each of the burnout subtypes when it comes to explaining the standard dimensions suggest a pattern of contributions that may be of use for the development of new treatments when faced with the need for specific interventions.

We have added an explanation to the background section (page 5, paragraph 2) and to the discussion section (page 10, paragraph 4, page 11, paragraphs 1-2) that the “frenetic” profile is significantly associated with the classic dimension of exhaustion [11-13], which is understandable if we consider the excessive workload experienced by this highly dedicated type of subject [15,21-25]. As we have been able to observe in our study, overload and lack of control were the ones that basically explained exhaustion, something which is coherent with the Karasek’s demand–control model [43] according to which psychological strain is caused by the combination of high demands and low control. This result is also in line with the areas of worklife model [44], according to which workload and lack of control are important correlates of the syndrome, and with the more recent demands-resources model [23], in which personal resources are more important when coping with work-related demands. All of this is congruent with the process of stress caused by lack of control over results and over decision-making, with the association established between excess work and the appearance of fatigue and low levels of empathy, and with the development of emotional disorders caused by chronic stress [45-50]. The “underchallenged” profile is related to the classic dimension of cynicism [11-13], possibly owing to the subject’s lack of enthusiasm resulting from their negative appraisal of their work conditions [22,26-29]. It was seen in our study that lack of development and indifference were the dimensions that most contributed to explaining the criterion dimension of cynicism. Using the Karasek’s framework with non-linear effects as proposed in a previous [51], a manner of interpreting these results is that just as high demands may be overwhelming, or “toxic” to use Warr’s word [52], low demands may also be so unchallenging as to create feelings of frustration and monotony. This perspective is also included in the model by Schwab, Jackson and Schuler [53], which considers monotony to be an antecedent for the syndrome. Moreover, the indifference variable contributed significantly to the explanation of all criterion dimensions, although his variable was strongly correlated with cynicism in particular and both could eventually reduce satisfaction, interest and productivity in this sub-type of workers [28, 54-56]. Finally, other studies mention that the “worn-out” profile seems to be associated with the classic dimension of inefficacy [11-13], probably owing to subjects’ apathy and lack of commitment [11,22,30,31], accentuated by experiences of lack of control and of acknowledgement [32-35]. It was seen in this study that neglect and lack of ambition were the dimensions that best explained the factor of lack of efficacy. These variables have also traditionally been associated with low performance levels in Bandura’s theory of perceived self-efficacy and lack of it may also cause difficulties when it comes to alleviating perceived stress [35,57-59]. In general, it is understood that a progressive decrease in levels of engagement seems be the kind of response adopted by burnout workers to cope with frustration, as described in the demand-resources model [23], and could be an important factor in explaining the differences between the sub-types from a longitudinal perspective [7, 10-12, 14-20, 60]. These differences, explained by the BSCQ-36 and BCSQ-12 models by means of the degree of dedication to tasks as a criterion of typological classification, are not explained by previous models of burnout.

The different burnout profiles allow the antecedent properties of the syndrome to be grouped according to their particular aetiology around the classification criterion of the typology, with differences established according to the degree of dedication to work-related tasks (page 4, paragraphs 1-2). This level of dedication is high for the “frenetic” burnout subtype, given the great involvement, ambition and overload characterizing it and because it works increasingly
harder, to the point of exhaustion; intermediate for the “underchallenged” subtype, owing to the indifference, boredom and lack of development it presents, and because it has to cope with monotonous and unstimulating conditions that fail to provide the necessary satisfaction; and low for the “worn-out” subtype, owing to the neglect, feeling of lack of control and lack of acknowledgement shown, and because it gives up when faced with stress or absence of gratification [7,11]. As we have stated, these characteristics can be considered trends and perceptions of individuals and provide us an idea of how the environmental conditions of the workplace can contribute to the development of the syndrome when affecting them as stressors.

Discretionary Revisions

1. The authors should to establish a fit between the concept and the estimated construct, and to present a brief revision on previous subtypes of burnout to ground the rationality of the study. For example, some models considering psychological symptoms (e.g., guilt), and physiological symptoms (e.g., prolactin levels).

Response

As suggested by the reviewer, we have included in the background section (page 3, paragraph 3) the explanation that other more recent approaches to burnout syndrome have allowed distinctions to be made with respect to how this syndrome presents depending on the presence or absence of psychological symptoms, such as guilt [10], which has opened up the possibility of dealing with the disorder from the perspective of individual differences. In addition, the discussion section (page 13, paragraph 2) also states that an interesting line of research, which could lead to the establishment of specific biological markers for the syndrome may arise from the study of possible associations between the burnout subtypes, defined by the BCSQ-12 or BCSQ-36 models, and physiological correlates for the syndrome in current use, such as cortisol, Immunoglobulin A, natural killer cell activity (NKCA) or mononuclear antibodies CD16 and CD57 [62-64], which are associated with the functioning of the hypothalamo-pituitary-adrenal axis and the immune system.

2. In same paragraph there are many references: p. 3, #4: 11-17; p. 4, #1, 2, & 3: 18-21; p. 4, #4: 11-17; p.9, #1: 11-22; p.9, #2: 11-22; p.9, #2: 11-21.

Respuesta

We have taken the reviewer’s comment into account and have reorganized the paragraphs to eliminate the repetition of references.

REFERENCES


Reply to reviewer's report 2

MS: 8632576886495503
Title (new): Understanding burnout according to individual differences: ongoing explanatory power evaluation of two models for measuring burnout types.
Version: 2 Date: 25 March 2012
Reviewer: Constantinos Kokkinos

Major Compulsory Revisions

Title

The title should change in order to better reflect the content of the study. Something like: Ongoing psychometric evaluation of 2 scales measuring burnout.

Respuesta

We have heeded the reviewer’s suggestion and have changed the title of the manuscript to: “Understanding burnout according to individual differences: ongoing explanatory power evaluation of two models for measuring burnout types” (página 1).

Abstract

Arithmetic results are not normally presented in the abstract. A shorter and more substantial version would benefit the paper.

Respuesta

As suggested by the reviewer, the abstract has been summarized and synthesized (page 2).

Background

I would like to see a bit more of the theoretical underpinnings of the scales used. In addition, the authors do not seem to differentiate from the initial burnout model put forth by Maslach and colleagues. However, it seems that what they are doing is a refinement, and better quantification of it. Thus, I don’t see the reason to describe the new scale as competing to the initial MBI but rather more of a complementary, or a refinement. Thus, a more critical approach should be reflected in the review of literature section of the paper. This is deemed necessary, since it will eventually lead to the formulation of hypotheses, which are nonexistent, and eventually will guide the subsequent statistical analyses.

Respuesta

Taking the reviewer's suggestions into account, we have explained the theoretical framework in which the scales of the analysis are based, underpinned by the social exchange theory, according to which burnout is the result of a perception of a lack of reciprocity in social exchange relationships. The perception of imbalances between efforts and rewards is an important source of stress in the workplace and is a determining risk factor for the development of the symptoms of burnout [1-4] (page 3 paragraph 4). The level of dedication to tasks, as a response to distress created by this perception of lack of reciprocity, is the classification criterion by which the proposal is theoretically organized. This level is high in the profile named frenetic (active coping), intermediate in the underchallenged profile and low in the worn-out profile (passive coping) [5] (page 4 paragraph 1). The typological model for burnout proposed by the BCSQ was originated from the phenomenological clinical research on burnout syndrome carried out by Dr Faber of Columbia University [6-12], whose analysis of qualitative content enabled experiences reported by clinical cases under study to be systematized [5,13], until a valid, reliable and productive operating definition was reached [14-17] (page 4 paragraph 1). Attention has been drawn to the difference in focus this approach brings with it, orientated as it is towards the antecedent factors that lead to the development of the different burnout profiles, with regard to the classic conceptual framework, in which the individual symptoms that characterize burnout
in a standard fashion are emphasized [18,19] (page 3 paragraph 3; page 5 paragraph 1). The common aspects on which both approaches are based had also been underlined, namely the consideration that burnout is the result of chronic work-related stress (page 3, paragraphs 3-4). A critical review of the limitations presented by the classic framework when it comes to facilitating the development of interventions that show positive medium and long-term results in individuals and organizations on the whole [20-22] has also been added, with emphasis on the advance that comes with an approach to the syndrome that is able to integrate comprehensive information on both the individuals and stressors present in the environment [23] (page 3, paragraph 4).

Moreover, information has been added to the manuscript on the validity of BCSQ [14,16-17] (page 4, paragraph 1), and a review of the literature on the dimensions of the model as antecedent factors of the classic symptoms through which the syndrome receives its standard definition [24-37], which has facilitated the consideration of the hypothesis that justifies the analysis methodology used (page 5, paragraph 2). The “frenetic” profile is associated with the classic dimension of exhaustion, which is understandable if we consider the excessive workload experienced by this highly dedicated type of subject [4,18,307.24], for which it was established that the dimensions that characterize this profile (involvement, ambition and overload) could contribute to a greater extent than the others in the explanation of ‘exhaustion’. The “underchallenged” profile is related to the classic dimension of cynicism, possibly owing to the subject’s lack of enthusiasm resulting from their negative appraisal of their work conditions [25,29-32], for which it was established that the dimensions characterizing this profile (indifference, boredom and lack of development) could contribute to a greater extent than the others in explaining cynicism. The “worn-out” profile is associated with the classic dimension of inefficacy, probably owing to subjects’ apathy and lack of commitment [14,25,33,34], accentuated by experiences of lack of control and of acknowledgement [35-38], for which it was established that the dimensions that characterize it (neglect, lack of control and lack of acknowledgement) could contribute to a greater extent that the others in explaining inefficacy. Finally, owing to the fact that the long BCSQ-36 differential model of burnout includes a larger number of factors than the short BCSQ-12 (only consisting of the dimensions of overload, lack of development and neglect), a hypothesis was established that the explanatory power of BCSQ-36 would probably be greater than that of BCSQ-12 in relation to the standard dimensions of exhaustion, cynicism and inefficacy.

Method

Sampling

Any justifications for the sample used? Why these particular employees?

Respuesta

It was decided that the participants in the study should be university employees owing to their constituting a multi-occupational population, with jobs of a very diverse nature (page 6, paragraph 1), which facilitated the possibilities of generalizing the obtained results. They are also workers who carry out their tasks face-to-face with other people, making this a population at risk of developing burnout syndrome [24] (page 6, paragraph 1). Both characteristics are strengths of the study, and have been referred to in the discussion section (page 10, parag.2).

Results

Why do not the authors report results from correlational analyses? In addition, it will be an asset to the paper to provide the reliability coefficients of all the subscales of the measures used.

Respuesta

As suggested by the reviewer, we have included in Table 1 the bivariate correlations between all the subscales by using Pearson’s r in a correlation matrix (referred to also in the data analysis sections: page 8, paragraph 1). This table also includes Cronbach’s alpha values obtained for each of the subscales in the study. In order to avoid duplication in the presentation of results, we have removed the r values for correlation between the BCSQ-36 and BCSQ-12
subscales and each of the standard dimensions of the MBI-GS, previously presented in Tables 2, 3 and 4.

**Discussion**

*One of the critical aspects of this psychometric study is the lack of test retest reliability analysis that would strengthen the findings. The authors should mention this in the limitations of the study.*

**Respuesta**

As suggested by the reviewer, the lack of test-retest reliability measurements has been included as a limitation (page 10, paragraph 2).

**Conclusions**

*A more thorough discussion of the implications of the study should finalize the section.*

**Respuesta**

As suggested by the reviewer, an explanation has been added to the conclusions section (page 13, paragraph 3) that both BCSQ-36 and BCSQ-12 present great explanatory power over the standard MBI-GS, with that of the former being significantly greater, which is understandable when taking into account the fact that it incorporates more information related to the antecedents of the classic or standard symptoms of burnout. In general, the BCSQ-36 may be very useful in mental health services, given that it provides a good deal of information, while the BCSQ-12 could be used as a screening measure in primary care consultations owing to its simplicity and functional nature. A definition of the development of burnout like that established using the BCSQ-36 and BCSQ-12 is a valid and useful tool for organizational evaluation and to identify work conditions to prevent the development of burnout and may provide a better understanding of the disorder as it is presented in each case, enabling the design of more specific treatment approaches. This perspective is more comprehensive than that provided by the classic MBI-GS, given that it assesses the individual's perception of work conditions and enables a description to be made of the medical history of the development of the syndrome based on its particular idiosyncrasy, providing a more complete characterization of burnout by means of clinical subtypes. The differences observed in the relative weighting of the properties of each of the burnout subtypes when it comes to explaining the standard dimensions suggest a pattern of contributions that may be of use for the development of new treatments when faced with the need for specific interventions. Results from interventions to deal with burnout have not been promising until now, although more research is required into the effectiveness of the programmes in use. More specific treatments based on a definition of the syndrome using clinical subtypes, based on the level of dedication to work-related tasks, could perhaps increase the efficacy of our interventions.

**REFERENCES**


