



# 29 JUNY 2012

**ENTRADA** Núm.: 1063 RT Núm.:





## Memòria justificativa de recerca de les beques predoctorals per a la formació de personal investigador (FI)

La memòria justificativa consta de les dues parts que venen a continuació:

- 1.- Dades bàsiques i resums
- 2.- Memòria del treball (informe científic)

Tots els camps són obligatoris

## 1.- Dades bàsiques i resums

Títol del projecte ha de sintetitzar la temàtica científica del vostre document. The relationships of Stress, Health and Wellbeing among Workers

Dades de l'investigador (benficiari de l'ajut)

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## Número d'expedient

2011FI B200219

Paraules clau: cal que esmenteu cinc conceptes que defineixin el contingut de la vostra memòria. Engagement, Burnout, Stress, Health, Metabolic Syndrome

Data de presentació de la justificació

Sept 2012, 27

Nom i cognoms, i signatura del beneficiari/ària

Vist i plau del/de la director/a del projecte

Generalitat de Catalunya Departament d'Economia i Coneixement





Resum en la llengua del projecte (màxim 300 paraules)

The precise relationship between the positive psychological state of work (i.e. engagement) and the negative psychological state (i.e. burnout) has recently received research attention. Some view these as opposite states on the same or similar continuum, while others take the position that they represent different biobehavioral spheres. This study expands our knowledge of the phenomena of engagement and burnout by analyzing their separate and joint manifestations. Using a sample of 2,094 nurses, respondents were analyzed to determine the configuration of antecendents leading to seperate and joint states of engagement and burnout, the configuration of engagement and burnout leading to mental, physical, and organizational outcomes, and the relationship between engagement, burnout, and risk for metabolic syndrome. The study found that while both work engagement and burnout are highly correlated to health and organizational outcomes, the relative statistical power of burnout has a greater direct effect on health. It is important for workers and managers to address the sources of burnout before addressing the positive psychological aspects of worker engagement.





Resum en anglès (màxim 300 paraules)

The precise relationship between the positive psychological state of work (i.e. engagement) and the negative psychological state (i.e. burnout) has recently received research attention. Some view these as opposite states on the same or similar continuum, while others take the position that they represent different biobehavioral spheres. This study expands our knowledge of the phenomena of engagement and burnout by analyzing their separate and joint manifestations. Using a sample of 2,094 nurses, respondents were analyzed to determine the configuration of antecendents leading to seperate and joint states of engagement and burnout, the configuration of engagement and burnout leading to mental, physical, and organizational outcomes, and the relationship between engagement, burnout, and risk for metabolic syndrome. The study found that while both work engagement and burnout are highly correlated to health and organizational outcomes, the relative statistical power of burnout has a greater direct effect on health. It is important for workers and managers to address the sources of burnout before addressing the positive psychological aspects of worker engagement.





2.- Memòria del treball (informe científic sense limitació de paraules). Pot incloure altres fitxers de qualsevol mena, no més grans de 10 MB cadascun d'ells.

#### Research Project

The underlying question that governs my research in this area is as follows: What combination of factors trigger or prevent the stress response in individuals and what are the consequences on physical and mental wellbeing and performance. The bulk of research being done on these issues within the fields of Organizational Behavior and Occupational Health Psychology approach this question from either the positive psychological perspective (engagement, flow, or passion) or from the negative psychological perspective (stress, burnout, anxiety, or depression). I have chosen to incorporate both perspectives in my study so that I can create a model of how demands and resources lead to either or both states, and how burnout and engagement can have a moderating influence on the outcomes of physical and mental health (anxiety and depression) and performance. I am currently concluding my first major study on this topic and am preparing my findings in a series of journal publications. These articles include a comparative analysis of the antecedents and consequences of High vs. Low Engagement and Burnout, the moderating influence of Engagement on Burnout with regards to physical and mental health, a structural equation model that positions demands, resources, affinity, engagement, and burnout in relation to their outcomes on health and productivity, an analysis of the impact of stress on risk for metabolic syndrome, and the psychometric dimensions of new measures I designed for this study.

To study these relationships, I conducted three studies. The first was conducted within Hospital Vall d'Hebron in Barcelona. A paper survey was completed by 250 nurses which allowed for the validation of new measures and the framing of the larger survey. A second study was conducted with the support of multiple nursing colleges in Spain. The colleges emailed a link to an online survey to all the practicing nurses registered in their area. The total recipient number could not be determined but 2,115 surveys were completed online. Of these, 21 surveys were removed from the dataset due to spurious data or omissions leaving 2,094 complete responses. The majority of responses were received from the provinces of Catalunya and Gipuzkoa. The respondents were 90.3% female, had a mean age of 39 years and had worked as a nurse for an average number of 16 years. Of these, 72% reported living with a partner and 85% of respondents worked full time as a nurse. A third, smaller, study was conducted to examine the relationship and effects of personal and organizational value congruence and their relative change between undergraduate and graduate students. These findings were presented in a conference and will factor more prominently in a future research project. A number of different forms of analysis were used throughout the various studies. Some of the more advanced methods employed included logistic, multiple linear, and hierarchical forms of regression, Multiple Dimensional Scaling (MDS) and Structural Equation Modeling (SEM). The resulting analysis served to isolate the relative effects of the study variables and construct a series of models of how more than 50 work and personal variables relate to each other in specific configurations.

#### **Summary of Important Findings**

#### Joint states of engagement and burnout:

- The group defined by states of Low Engagement and Low Burnout (LELB) was best predicted by all three types of Demands and Job Involvement. Results of the ANOVA analysis indicated that when compared to the remaining population, these nurses exhibited significantly lower Demands and Affinity and had higher levels of Colleague Support. These nurses demonstrated better overall health on all measures. This group has been labeled 'Loafers' to indicate their relative lack of demands, normal levels of resources and support and their apathy towards the work.
- The group defined by states of Low Engagement and High Burnout (LEHB) was best predicted by Emotional Demands, Work Interfering with Home, Self Development Opportunities, Colleague and Spousal Support, and the two measures of Affinity. Results of the ANOVA analysis indicated that this group of nurses demonstrated significantly higher Demands,







lower Resources, lower Social Support, and lower Affinity.

They reported a significantly poorer level of health on all measures. This group has been labeled 'Slaves', to indicate their increased demands and lack of resources, support or personal affinity to the work.

- The group defined by states of High Engagement and Low Burnout (HELB) was predicted using all variables except for Autonomy. The ANOVA results revealed that, compared to the remaining population, this group exhibited significantly lower Demands, higher Resources, higher Social Support, and higher Affinity. They also demonstrated significantly better health on all measures. This group has been labeled 'Apprentices' to indicate their lower demands and higher levels of resources, support, and affinity to the work.
- The group defined by states of High Engagement and High Burnout (HEHB) was best predicted by all measures of Demands, Self Development, Supervisor Support and Job Involvement. The results of the ANOVA analysis indicate that these workers experienced higher Demands, higher Self Development Opportunities, lower Social Support, and higher Affinity than their colleagues. They were also marked by comparatively lower health on all measure when compared to their colleagues. We have termed as 'Lone Rangers' to reflect their higher demands, resources, and affinity to the work but lack of social support.

## Relative effects of Burnout and Engagement on Physical, Mental and Organizational Health

- Engagement acts as a moderator between stress (burnout) and mental health
- Engagement acts as a moderator between stress (burnout) and physical health
- Engagement and Burnout have both direct and configurational effects on variables of organizational health
- The findings suggest that perhaps less emphasis should be placed on studying Engagement as
  a driver of positive health, but rather as a means of combating the factors of stress and
  reducing their adverse impact on health.
- The dominating nature of burnout over engagement with regards to health suggests that the linkage between engagement and positive health may become actualized most significantly in situations where the factors that drive stress are at levels above the threshold of burnout.

### Relationship of Burnout, Health, and Metabolic Syndrome

- There is a strong Relationship between MS and Anxiety/Depression
- Direct and Indirect relationships between MS and Stress/Burnout
- MS engenders a stigmatization effect resulting in lower social support and fewer resources
- MS results in an increased identification with work (aff. Commitment, Involvement). Suggests
  a coping mechanism due to their desire to change jobs, but perceived inability to do so
- Critical factors determining dieting behaviors among those with MS include social support and depression
- Non-linear effects of MS progression generally supported.

### **Publications/Conference Proceedings**

#### Peer Reviewed Papers in Press

• Yuanjie Bao, Rebekka Vedina, Scott Moodie & Simon Dolan (ESADE) "The effect of value congruence on individual and organizational wellbeing: An exploratory study among Catalan nurses, *International Journal of Nursing Studies* 

### Peer Reviewed Papers under Review

• Moodie, S., Dolan, S., Burke, R; Classifying joint states of Engagement and Burnout, European Journal of Work and Organizational Psychology







#### Working Papers for submission in Peer Reviewed Journals

- Moodie, S., Dolan, S., Arsenault, A; Exploring the Multiple Linkages between Metabolic Syndrome and Stress: An Empirical Analysis of the Relationships between Work, Stress, Health, and Metabolic Syndrome among Spanish nurses.
- Moodie, S., Dolan, S., Burke, R; Not so positive, an empirical examination of the relative impact of work engagement and burnout on worker health and wellbeing.
- Moodie, S., Dolan, S; Antecedents of accident propensity among nurses: validation of a measure of perceived accident propensity among nurses.
- Burke, R., Moodie, S., Dolan, S., Fiksenbaum, L; Job demands, social support, work satisfactions and psychological well-being among nurses in Spain
- Burke, R., Moodie, S., Dolan, S., Fiksenbaum, L; Predictors of the decision to retire among nurses in Spain
- Burke, R., Moodie, S., Dolan, S., Fiksenbaum, L; Reasons for working part-time among nurses in Spain
- Moodie, S.; Cultural Agency A theoretical proposition for a new perspective in the study of personal and organizational culture.

#### **Publications in Practitioner Journals**

• Dolan, S. L. & Moodie, S. (2010). Can becoming a manager be dangerous to your health? Is suicide the new occupational hazard? *Effective Executive*, 13(1), 66-69

#### **Conference Presentations and Proceedings**

- Moodie, S., Dolan, S., Burke, R. (2012) Work engagement, Burnout and health re-examined: a new evidence-based framework., Cross Divisional Paper session at the 2012 Academy of Management Annual Meeting, Boston, Massachusetts;
- Moodie, S., Dolan, S., Arsenault, A (2011) Exploring the Multiple Linkages Between Metabolic Syndrome and Stress: An Empirical Analysis of the Relationships Between Stress, Health, and Metabolic Syndrome Among Catalan Nurses., Oral Presentation at The International Conference on Pre-Hypertension and Cardio Metabolic Syndrome, Vienna, Austria;
- Moodie, S., Dolan, S., Arsenault, A (2010) Exploring the multiple linkages between work engagement and health: An empirical analysis within the Catalan nursing context., Proceedings of the 9th European Academy of Occupational Health Psychology, Rome, Italy;
- Moodie, S., Bao, Y. & Dolan, S. L (2010). Are We Breeding Nihilists? An Analysis of the Perceived Personal Importance of Values Between Undergraduate and Post-Graduate Students. Paper presented at the 12th Biennial Conference of the International Society for the Study of Work and Organizational Values, Lisbon, Portugal;
- Moodie, S., Diez Pinol, M., Dolan, S. (2009), An exploratory study of the impact of work status on workplace engagement, well-being and accident proneness. Proceedings of the VII International Workshop on HRM, Murcia, Spain;