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MENTAL HEALTH AT WORK: STRESSORS AND COPING MECHANISMS

Inês Marques dos Santos Fonte Santa

Work project carried out under the supervision of:

Pedro Pita Barros

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Abstract

The Covid-19 pandemic had dramatic consequences for workers' mental health. Following the Demand-Resource Model, and using 2021 Eurofound's survey, this paper evaluates whether, in Portugal, managers can offset the negative relation between job demands and workers' health by giving them resources. Findings show that having colleagues support, ability to influence decisions, and fair payment decrease the likelihood of burnout (-18p.p.), anxiety (-18p.p.), and depression (-7p.p.), respectively. Managers' priority should be to reduce pressure coming from work-life unbalance, exposure to emotional disturbances, and working at a high speed as the association with health is particularly high (10p.p.-20p.p.) and difficult to overcome.

Keywords: health economics; probit models; mental health; labor market

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1. Introduction

Over the last decades, there were continuous transformations in the labour market, following globalization, technological progress as well as economic and financial crises, which have significantly changed the work experience with serious implications for workers' health. Additionally, the psychological burden and work-life adjustments caused by the Covid-19 pandemic highlight the importance of studying mental health problems which have shown to occur at any occupation and hierarchical level.

Thus, research on mental health is increasingly important, particularly in Portugal that, even before the pandemic, had one of the highest prevalence of mental disorders in Europe (Almeida et al., 2013) and was behind other European countries in terms of mental health services (Xavier et. al, 2013). Also, Portugal has one of the highest consumption of anxiolytics and antidepressants (Almeida et al., 2013), partly given limitations in access to the health system. Adding to this, the loss of productivity, associated with absenteeism and presenteeism, when workers are mentally ill, can cost 5.3 billion euros per year to national companies (Ordem dos Psicólogos Portugueses, 2023).

Since the workplace is one key determinant of health and well-being (WHO, 2000) and Portuguese workers are among the ones that work more hours in the EU (Eurostat, 2022), the current paper adds to the literature by focusing on three mental disorders – anxiety, depression, and burnout – among Portuguese workers' and its potential drivers at work. Specifically, it addresses the question: *“Are managers able to offset the negative relation between job demands and workers' health by giving them resources as coping mechanism?”*. Findings show that, whereas almost all demands significantly increase the probability of anxiety, depression, and burnout, only few resources prove to reduce it and, even fewer, are able to cope with such demanding conditions. All in all, managers' priority should be to reduce pressure coming from work-life unbalance, exposure to

emotional disturbances, and working at a high speed as the association with health risks is particularly high and difficult to overcome. Also, the study gives an insight into potential targeted solutions to prevent and promote occupational health in Portugal.

2. Literature Review

Recently, economists have started studying the impact of work-related factors on mental health, a topic that has been highly discussed among academics in the fields of epidemiology, psychology, and sociology over time.

According to the WHO, depressive disorders are characterized by the presence of depressive mood or markedly diminished interest in previously enjoyed activities whereas Generalised Anxiety Disorder (GAD) is characterised by persistent apprehension or excessive worry on daily events. In accordance with Maslach et al. (1997), burnout is characterized by feelings of i) exhaustion; ii) cynicism towards work; and iii) professional inefficacy. However, burnout was only considered in the International Classification of Diseases (ICD-10) and, as an occupational phenomenon, in the International Classification of Diseases (ICD-11).¹

In fact, when compared to anxiety and depression, burnout has not been so discussed which may be explained by the common symptoms among them. Given the need to clarify these relationships, Koutsimani et al. (2019) conducted a systematic review and meta-analysis showing that the association burnout-depression and burnout-anxiety occur, but a full overlap does not exist which supports the fact that they are not the same illness, although sharing common features that probably develop in tandem.

Studies have shown that working conditions are highly associated with health problems.

¹ In ICD-11, anxiety and depression considered “Mental, behavioural or neurodevelopment disorders” in the section “Mood disorders” whereas burnout included among “Factors influencing health status or contact with health services” in the section “Problems associated with employment or unemployment”.

According to the Job Demand-Control (JD-C) Model (Karasek, 1979), the most adverse health outcomes take place among jobs characterized by high demands (e.g. work overload) and low control (i.e. low autonomy). Indeed, Castanheira and Chambel (2011) demonstrated that, among front-line employees of a Portuguese bank, both quantitative and emotional demands were associated with higher levels of exhaustion and cynicism whereas autonomy was related to lower levels of these two core dimensions of burnout.

However, besides the emergence of the “service economy” associated with new (emotional) demands, the increased importance given to interpersonal relationships led to the development of the Job Demand-Control-Support (JD-C-S) Model (Johnson and Hall, 1988). This model states that the worst situations occur when high demands and low control are combined with low levels of social support within the workplace. Nappo (2019) showed that, in EU15 countries, high work intensity, precarious work and the impossibility to take breaks increased the probability of workers reporting anxiety while such likelihood decreased with colleagues’ cooperation and managers’ support.

Although the JD-C Model is one of the most popular theoretical models, some consider that its simplicity does not capture the complex relationship between work and health. Thus, by assuming that each occupation may have its own specific risk factor and considering an extensive list of demands and resources, the Job Demand-Resource (JD-R) Model (Demerouti et al., 2001) is a more flexible and overarching approach that can be applied to all the universe of job positions.

According to the JD-R Model, regardless the occupational setting, workers tend to increase effort when faced with high demands which, in turn, leads to exhaustion and health problems (energetic process). However, resources are instrumental in dealing with demands and foster individuals’ growth and development which, in turn, leads to work engagement and low turnover intention (motivational process). Indeed, Schaufeli and

Bakker (2004) found that, among Dutch workers from service occupations, high demands and lack of resources explain burnout.

A final assumption in the JD-R Model is that (certain) resources buffer the effect of (certain) demands on strain, expanding the buffer hypothesis of JD-C and JD-C-S Models. Bakker et al. (2005) illustrated that, not only autonomy and colleagues' support, but also performance feedback and employee-manager relationship act as moderators in the impact of demands on burnout among Dutch workers from a professional high school.

In a nutshell, regardless the occupational stress model under analysis, the risk imposed by demand factors, and the possibility to mitigate those risks by giving workers' control, social support, or other resources, are common to all. The current paper adds to the literature by employing the JD-R Model in the Portuguese context.

3. Research Question & Hypothesis

Keeping the JD-R Model in mind, the current paper begins by testing whether demands are positively, and resources are negatively, associated with anxiety, depression, and burnout (H1 and H2). Then, the paper tests whether *“managers can offset the negative relation between job demands and workers' health by giving them resources as coping mechanism”*, that is, the so-called buffer hypothesis (H3) (Table 1).

Table 1 – Research Hypothesis

H1: Job demands	H1.1: Working at high speed	is positively associated with ...	anxiety depression burnout
	H1.2: Working to tight deadlines		
	H1.3: Dealing with clients		
	H1.4: Exposure to emotional disturbances		
	H1.5: Work-life unbalance		
	H1.6: Work during free time		
H2: Job resources	H2.1: Ability to influence decisions	is negatively associated with ...	
	H2.2: Consultation before setting objectives		
	H2.3: Involvement in improve work organisation		
	H2.4: Autonomy to choose methods of work		
	H2.5: Autonomy to choose order of tasks		
	H2.6: Autonomy to choose speed of work		
	H2.7: Job security		
	H2.8: Work recognition		
	H2.9: Paid appropriately		
	H2.10: Career prospects		
	H2.11: Colleagues help and support		
	H2.12: Manager help and support		
H3: The negative association of job resources with anxiety, depression, and burnout offsets the positive association of job demands with anxiety, depression, and burnout			

Source: own construction

4. Data & Sample

This paper is based on data from the 7th edition of the European Working Conditions Survey (EWCS) fielded between March and November 2021 by the Eurofound.

Since 1990, face-to-face surveys have been conducted every 5 years to a random sample of workers.² However, the European Working Conditions Telephone Survey (EWCTS) 2021 was an extraordinary edition as the spread of the Covid-19 pandemic required changing from face-to-face to telephone interviews. Consequently, the sampling methodology as well as the length of the questionnaire had to be adapted, namely through modularisation.³

The telephone questionnaire was composed by 3 parts: a core part to be answered by all

² The surveys are directed to individuals resident and employed (i.e. according to ILO, individuals that worked for pay or profit for at least an hour in the week preceding the interview) in the surveyed country at the time of the interview. Also, the survey includes employed workers (i.e. those employed by an employer or a temporary employment agency) and self-employed workers (i.e. those who have their own business, who are partners in a business or freelancers).

³ Under the context of the Covid-19 pandemic, changing the survey mode from Computer Assisted Personal Interviewing (CAPI) to Computer Assisted Telephone Interviewing (CATI) was a similar procedure among surveys. While the EWCS adopts a multistage, stratified, random sample in selecting the target working population, the EWCTS adopts a single-stage, un-clustered, random probability sampling procedure, known as Random Digit Dialling (RDD).

respondents (core questions); and other two parts (module 1 and 2) in which respondents were randomly allocated to a subset of questions (modularised questions)⁴⁵ (Appendix 1). In the end, a random sample of 71,758 working adults in 36 countries were contacted by telephone.⁶ In Portugal, although the initial sample was composed by 1880 workers (17% response rate),⁷ the sample under analysis surrounds 1449 workers and, for each outcome under analysis, sub-samples surround 400-500 workers. Self-employed workers were not considered (16.3% in the sample) because the focus of the paper is to inform managers about the working features that foster workers' health and wellbeing.

5. Descriptive Statistics

The sample under analysis includes Portuguese workers aged between 17 and 75, however most of the respondents have between 25 and 55 years old (81%) (Table 2). Although 42% of the workers have 10 or more years of experience, 42% of the workers only have 4 years or less (Appendix 2, Table 2.1). On average, workers have 41 years old and 12 years of experience (Appendix 2, Table 2.2). The sample is balanced in terms of gender. Regarding education levels, about half of the workers completed middle education followed by 42% of the workers who completed high education.

⁴ The items included in the modules were those considered more relevant to workers' well-being and those with the strongest evidence for their statistical reliability. Module 1 included M1A, M1B and M1C sub-modules and the module 2 included M2A and M2B. Each respondent answered the core questions plus 2 of the 3 sub-modules from module 1 and 1 of the 2 sub-modules of module 2.

⁵ Besides modularisation, some questions were not asked, certain questions were asked using a different answering scale and a few new questions were introduced. Given the transformation in the survey mode and the questionnaire adaptations, the EWCTS 2021 cannot be directly compared to previous editions of the survey.

⁶ EU27 countries, 6 candidate and potential candidate countries (Albania, Bosnia and Herzegovina, Kosovo, North Macedonia, Montenegro and Serbia) and 2 countries from the EFTA (Norway and Switzerland) and the UK.

⁷ As expected, although above the overall response rate of 5% and above the target of 1800 respondents defined by the Eurofound, the CATI 2021 response rate was significantly lower compared to CAPI 2015 response rate (55%). Such lack of response was expected given the change in methodology which implies a higher risk of non-response bias. Thus, and as suggest by Brick and Kalton (1996), the Eurofound weighted the sample segments to deal with the lack of representativeness and reflect greater population attributes.

Table 2 – Descriptive Statistics: Individual Characteristics (% of the sample)

Female	Freq	Percent
0	718	50%
1	731	50%
Age Groups	Freq	Percent
17-24	124	9%
25-34	329	23%
35-44	419	29%
45-55	417	29%
56+	160	11%
Education	Freq	Percent
Primary	108	7%
Secondary	734	51%
Tertiary	607	42%

Source: own construction

The majority of the respondents have a single job (93%), a permanent contract (81%) and work full-time (94%) in the tertiary sector (74%) and in the private sector (72%). Most of the workers are from Portugal mainland (96%), specifically 55% of the workers are from the Centre followed by 31% from the North.

Concerning the outcomes under analysis, more than half of the individuals in the sample reported feeling anxious, 37% of the workers have burnout and 22% of the workers are depressed (Table 3).

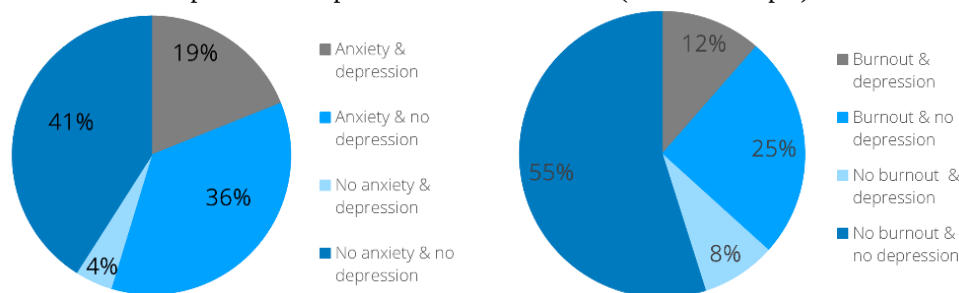
Table 3 – Descriptive Statistics: Outcomes (% of the sample)

Anxiety	Freq	Percent
Anxiety	393	55%
No anxiety	326	45%
Burnout	Freq	Percent
Burnout	268	37%
No burnout	461	63%
Burnout	Freq	Percent
Emotional exhaustion	33	5%
Physical exhaustion	163	22%
Physical and emotional burnout	72	10%
No burnout	461	63%
Depression	Freq	Percent
Depression	310	22%
Normal	1129	78%
Depression	Freq	Percent
Depression	88	6%
At risk of depression	222	15%
Normal	1129	78%

Source: own construction

Additionally, in the sample, 19% of the workers have both anxiety and depression whereas 12% of the workers have both burnout and depression (Graph 1).

Graph 1 – Descriptive Statistics: Outcomes (% of the sample)



Source: own construction

Regarding the degree of strain, based on the job quality index computed by the Eurofound, 29% of the jobs are classified as strained whereas 71% of the jobs are classified as resourced which conveys a positive picture (Appendix 2, Table 2.3 and 2.4).⁸

6. Variables

6.1. Dependent Variables

The health problems under analysis are: 1) anxiety measured using a dummy variable that indicates whether workers felt anxious, over the last 12 months; 2) depression measured using a categorical variable that indicates whether workers are depressed, at risk of depression or in normal status; and 3) burnout measured using a dummy variable that indicates whether workers have burnout and a categorical variable that indicates whether workers have emotional, physical, emotional & physical burnout or no burnout (Appendix 3, Table 3.1). All outcomes variables are self-reported data.

6.2. Independent Variables

The choice of explanatory variables is driven by the aim of the study and following the JD-R Model as theoretical framework. According to Bakker and Demerouti (2006), demands and resources are defined as physical, psychological, social or organizational

⁸ The Eurofound's job quality index is composed by seven indicators: physical and social environment, work intensity, working time quality, skills and discretion, prospects, and rewards. According to Eurofound (2022), the job quality index indicates whether jobs are extremely, highly or moderately strained (when the number of demands exceeds the number of resources) or whether jobs are poorly, moderately or highly resourced (when the number of resources exceeds the number of demands). For details see Appendix 2, Table 2.3 and 2.4.

aspects of the job. However, while demands require sustained effort and are associated with physical and/or psychological costs, resources are instrumental in dealing with demands and stimulate personal growth and development.

Regarding demands, two dimensions were considered: 1) work intensity composed by quantitative and qualitative demands indicators'; and 2) work extensity composed by working time arrangement indicators' (Appendix 3, Table 3.2). Regarding resources, three dimensions were considered: 1) organizational resources composed by organizational participation and autonomy indicators'; 2) rewards composed by rewards indicators'; 3) social resources composed by social support indicators' (Appendix 3, Table 3.3). In total, 6 demands and 12 resources were included in the study (Table 4).

Table 4 – List of Explanatory Variables: Job Demands and Job Resources

Job Demands	Work Intensity	Quantitative Demands	Working at High Speed	
			Working to Tight Deadlines	
	Work Extensity	Qualitative/Emotional Demands	Dealing with Clients	
				Emotional Disturbances
		Working Time Arrangements	Work-Life Unbalance	
				Work During Free Time
Job Resources	Organizational Resources	Organizational Participation	Influence Decisions	
				Consulted Objectives
				Involved in Improve Work
		Autonomy	Autonomy Method Work	
			Autonomy Order Tasks	
			Autonomy Speed Work	
		Rewards		Job Security
				Work Recognition
				Paid Appropriately
				Career Prospects
	Social Resources	Social Support		Colleagues Help Support
				Manager Help Support

Source: own construction

All variables were originally categorical but were transformed into dummy variables in order to reduce dispersion and ease interpretation. For details, see Appendix 3.

6.3. Control Variables

Furthermore, several control variables are included in the econometric analysis to capture individual characteristics', namely age, gender, household size and education. Also,

dummies to control for the sector of activity (tertiary vs. secondary and primary sectors), type of contract (permanent vs. temporary or no contract), sector of employment (private vs. public and other sectors) and the living/working region were included. Furthermore, since Eurofound omit the data from individuals' income due to confidentiality issues, individuals' ability to make ends meet was used as a proxy (Appendix 3, Table 3.4).⁹

7. Econometric Model

Given that some questions were modularised, including all variables of interest in a single regression would come with the trade-off of losing a high number of observations. Thus, three different models for each of the three outcomes under analysis were considered: *Model 1 – Organizational Resources* composed by the core part of the questionnaire plus organizational participation and autonomy indicators; *Model 2 – Rewards* includes the core part of the questionnaire plus rewards indicators; and *Model 3 – Social Resources* is composed by the core part of the questionnaire plus social support indicators. Some organizational participation, autonomy, and rewards' indicators were maintained in the three models because those belong to the core part of the questionnaire. The variables that are not core in the questionnaire are the ones that give name to each model.

7.1. Probit Models: Standard, Ordered, and Multinomial Probit Models

The association between working conditions and anxiety was tested using a standard probit model, that is widely used to analyse discrete data of this type.¹⁰ Also, when considering burnout as a dummy variable, a standard probit model was used.

For the categorical variables – depression and burnout – , an ordered and multinomial

⁹ Controlling for whether workers have a single or multiple jobs, work full- vs. part-time and for a SME or large enterprise were not added as controls given that i) only 7% of the respondents reported having multiple jobs; ii) only 6% of the respondents reported working part-time; and iii) the majority of the companies are SMEs (only 12% of the respondents reported working in large enterprises).

¹⁰ For econometric details see Wooldridge, Jeffrey M. 2012. "Introductory Econometrics: A Modern Approach", 583-596. South-Western, USA.

probit models were used, respectively. On one side, the ordered probit model preserves the ordering of the three categories of the ordinal dependent variable – depression – while making no assumptions about the interval distances between them. On the other side, the multinomial probit model allows the non-ordinal dependent variable – burnout – to fall into its categories without ordering them.¹¹

Standard Probit Model

$$P(Y_i = 1|X_i) = \Phi(\alpha + \beta X_i + \text{controls}_i + \varepsilon_i)$$

$$Y_i = \begin{cases} 0 & \text{if } Y_i^* \leq 0, \\ 1 & \text{if } Y_i^* > 0. \end{cases}$$

$$\varepsilon_i \sim N(0,1)$$

where Y_i^* is the latent (unobserved) dependent variable, Y_i is the (observed) dependent variable, X_i is a vector of explanatory variables, controls is a vector of control variables, Φ represents the cumulative normal distribution function, β is a vector of parameter estimates and subscript i denotes an individual observation.

Multinomial Probit Model

$$P(Y_i = m|X_i) = \Phi(\alpha_m + \beta_m X_i + \text{controls}_i + \varepsilon_{i,m})$$

$$Y_i = \begin{cases} 0 & \text{if } Y_i^* \leq 0, \\ 1 & \text{if } Y_{i,1}^* > Y_{i,2}^*, \dots, Y_{i,m}^*, \\ 2 & \text{if } Y_{i,2}^* > Y_{i,1}^*, Y_{i,3}^*, \dots, Y_{i,m}^*, \\ 3 & \text{if } Y_{i,3}^* > Y_{i,1}^*, Y_{i,2}^*, \dots, Y_{i,m}^*, \\ 4 & \text{if } Y_{i,4}^* > Y_{i,1}^*, Y_{i,2}^*, Y_{i,3}^*, \dots, Y_{i,m}^*. \end{cases}$$

$$\varepsilon_{i,m} \sim N(0,1)$$

where Y_i^* is the latent (unobserved) dependent variable, Y_i is the (observed) dependent variable, subscript $m = 1, 2, 3$ and 4 represents the four categories of the dependent variable burnout, X_i is a vector of explanatory variables, controls is a vector of control variables, Φ represents the cumulative normal distribution function, β is a vector of parameter estimates and subscript i denotes an individual observation.

Ordered Probit Model

$$P(Y_i = m|X_i) = \Phi(\alpha + \beta X_i + \text{controls}_i + \varepsilon_i)$$

$$Y_i = \begin{cases} 0 & \text{if } Y_i^* \leq 0, \\ 1 & \text{if } 0 < Y_{i,1}^* \leq \mu_1, \\ 2 & \text{if } \mu_1 < Y_{i,2}^* \leq \mu_2, \\ 3 & \text{if } \mu_2 < Y_{i,3}^*. \end{cases}$$

$$\varepsilon_i \sim N(0,1)$$

where Y_i^* is the latent (unobserved) dependent variable, Y_i is the (observed) dependent variable, subscript $m = 1, 2$ and 3 represents the three categories of the dependent variable depression, X_i is a vector of explanatory variables, controls is a vector of control variables, Φ represents the cumulative normal distribution function, β is a vector of parameter estimates, μ represent the cut points and subscript i denotes an individual observation.

7.2. Tests and Outcomes Validity

All regressions were subject to a selection bias test and whenever some individuals' characteristics dictated higher probability of being included in the sample, the Heckman selection probit models were applied. Additionally, the models were found to be correctly specified and no multicollinearity problem exists.^{12,13} All regressions were corrected for heteroskedasticity. Afterwards, stepwise regressions were run with backward elimination approach.¹⁴ Finally, to test the buffer hypothesis, the Wald Test was used. Under the null,

¹¹ For econometric details see Cameron, A. Colin and Trivedi, Pravin K. 2009. "Microeconometrics Using Stata", 510-514 and 503-507. College Station, Texas: Stata Press.

¹² The Link Test was used to test for correct model specification of the probit and ordered probit models whereas, for the multinomial probit model, the Hausman Test (or the Suest Test) were used. An assumption of the multinomial probit model is that the outcome categories have the property of Independence of Irrelevant Alternatives (IIA). The model is correctly specified if the IIA assumption holds, that is, if there is no systematic change in the coefficients when one excludes a category from the model.

¹³ Variance Inflation Factor (VIF) was used to test for multicollinearity. According to O'Brien (2007), although rules-of-thumb associated with VIF need to be interpreted in the context of other factors that influence the stability of the estimates, much of the practitioners consider $VIF < 10$ an indication of low or non-existence of multicollinearity.

¹⁴ Stepwise is a method of fitting regression models in which, by backward elimination, the variable whose loss gives the most statistically insignificant deterioration is removed and the process repeats until no further variable being possible to delete without a statistically significant loss of fit. The variables excluded are the ones that do not fulfil the criterion imposed, in this case, those that are not significant at 10% significance level.

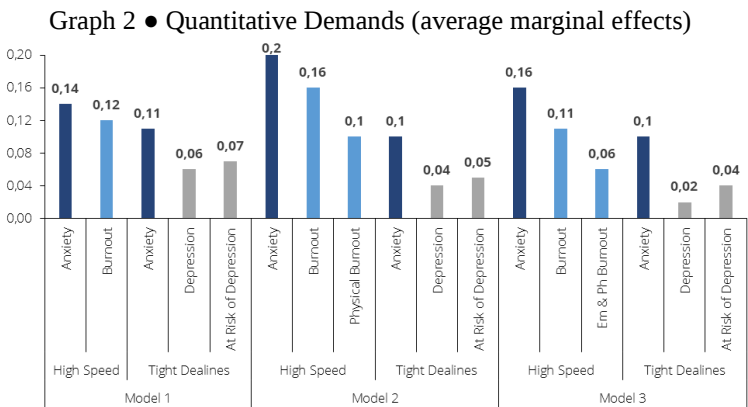
the sum of the demand and resource coefficients' is equal or less than zero (i.e. evidence of buffer effect).

8. Results

The first step consists in testing the validity of H1 and H2, that is, whether demands are positively, and resources are negatively, associated with the disorders under analysis. The standard, ordered and multinomial probit estimates as well as the average marginal effects of the three original models are presented in Appendix 4. The final models obtained through the stepwise approach are in line with the originals and are the focus of this analysis (Appendix 5). Afterwards, to test whether resources can alleviate the positive association between demands and health problems (H3), only the demands and resources that validate H1 and H2 were considered. Appendix 8 report the results from the Wald Test used to test the buffer hypothesis for each outcome.

8.1. Hypothesis 1: Job Demands

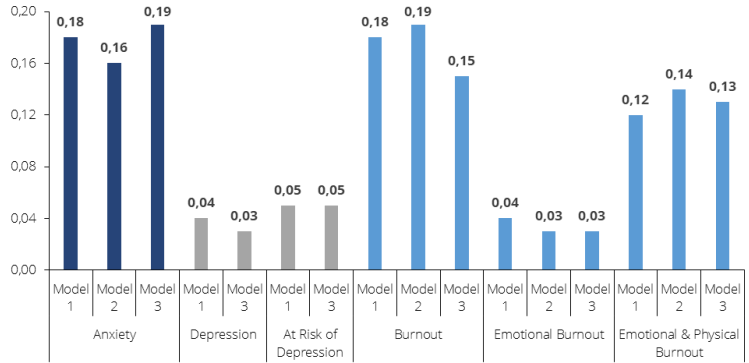
According to Graph 2, it is possible to conclude that working at a highspeed increase the probability of workers reporting anxiety and burnout (around 11p.p.-20p.p.) while working to tight deadlines increases the likelihood of workers reporting anxiety (10p.p.-11p.p.) and depression (2p.p.-7p.p.). Looking into the burnout dimensions, working at highspeed associates with physical burnout and emotional & physical burnout.



Source: Model 1 - Organizational Resources, Model 2 - Rewards, and Model 3 - Social Resources (Appendix 5)

For qualitative demands (Graph 3), no association was found between having to deal with clients and impaired health which is in line with Castanheira and Chambel (2010) who found that requirements to express certain emotions with clients did not contribute to burnout among Portuguese salespeople. However, workers exposed to emotional disturbances present an increased likelihood of reporting anxiety (16p.p.-19p.p.), burnout (15p.p.-19p.p.) and depression (3p.p.-5p.p.). Regarding burnout, exposure to emotional disturbances is positively linked with emotional & physical burnout (12p.p.-14p.p.) and, to a less extent, with emotional burnout (3p.p.-4p.p.). Emotional disturbances seems to be unrelated with clients' interactions suggesting that social environment at work is the main driver.

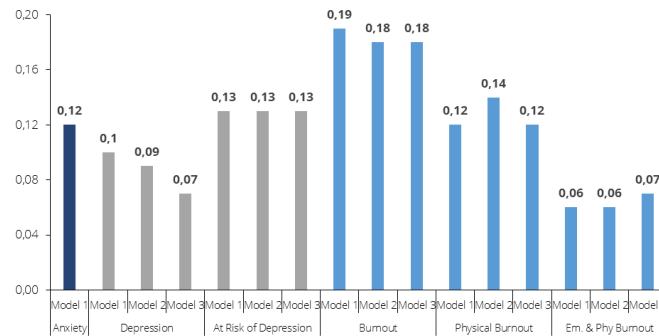
Graph 3 • Qualitative or Emotional Demands: Emotional Disturbances (average marginal effects)



Source: Model 1 - Organizational Resources, Model 2 - Rewards, and Model 3 - Social Resources (Appendix 5)

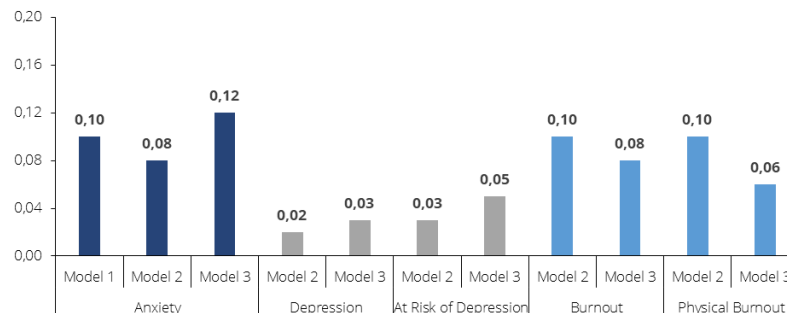
Regarding work extensivity (Graphs 4 and 5), the outcome confirms that the inexistence of work-life balance and the need to work during free time increases the probability of workers developing the three mental illnesses. Still, workers with a poor work-life balance face an increased probability of having mental issues compared to individuals working during free time. Results show that unbalance between work and private life may lead to both physical burnout (12p.p.-14p.p.) and emotional & physical burnout (6p.p.-7p.p.) while working during free time may only cause physical burnout.

Graph 4 • Work Extensity: Work-Life Unbalance (average marginal effects)



Source: Model 1 - Organizational Resources, Model 2 - Rewards, and Model 3 - Social Resources (Appendix 5)

Graph 5 • Work Extensity: Work During Free Time (average marginal effects)



Source: Model 1 - Organizational Resources, Model 2 - Rewards, and Model 3 - Social Resources (Appendix 5)

In a nutshell, results are in line with the literature that state that work intensity and extensity are important predictors of impaired health. Overall, H1.4 (emotional disturbances), H1.5 (work-life unbalance) and H1.6 (work during free time) are confirmed for all outcomes under analysis, whereas H1.1 (working at high speed) and H1.2 (working to tight deadlines) hold for 2 of the 3 outcomes, and H1.3 (dealing with clients) is rejected (Appendix 6, Table 6.1).

8.2. Hypothesis 2: Job Resources

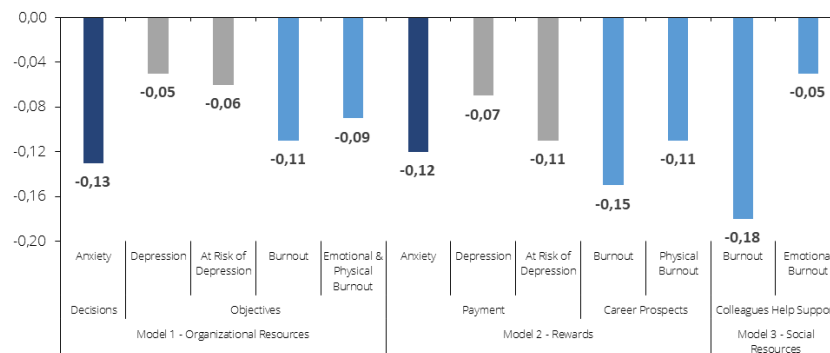
Contrarily to demands, organizational participation and autonomy, rewards and social support are only commented according to the results obtained in their specific model.

According to *Model 1 - Organizational Resources* (Graph 6), the ability to influence decisions lowers the probability of reporting anxiety (-13p.p.) whereas, when workers are consulted about objectives, the probability of developing depression and burnout (particularly, emotional & physical burnout) reduces by 5p.p.-6p.p. and 11p.p.,

respectively. In fact, the involvement of workers in the decision-making process may play a motivational role and give employees a sense of belonging and workplace voice.

Surprisingly, autonomy is unrelated with mental health issues which contradicts Castanheira and Chambel (2011) who found that autonomy was related to lower levels of exhaustion among front-line employees of a Portuguese bank. Nevertheless, results may be explained by personal characteristics and workers' profiles. Although implying a feeling of independence and internal control, autonomous workers become responsible for their success and failures creating additional pressure.

Graph 6 • Organizational Resources, Rewards and Social Resources (average marginal effects)



Source: *Model 1 - Organizational Resources, Model 2 - Rewards, and Model 3 - Social Resources* (Appendix 5)

Concerning rewards, according to *Model 2 - Rewards* (Graph 6), there is no evidence that job security and work recognition are related with health impairments. Also, Caroli and Godard (2016), when using an instrumental variable approach, found no impact of job insecurity on anxiety nor depression in EU22 countries, including Portugal. Nevertheless, fair payments seem to reduce the probability of workers reporting anxiety and depression (-12p.p. and -7p.p., respectively) while having good career prospects seem to decrease the likelihood of burnout (-15p.p.), namely physical burnout (-11p.p.). Results are plausible as, besides income level and stable employment, workers value fairness of monetary rewards and opportunities for self-realisation and self-development at work. As stated in the Effort-Reward Imbalance Theory (Siegrist, 1996), adverse health effects may

arise in case workers perceive their level of rewards is not proportional to their effort.

Following *Model 3 - Social Resources* (Graph 6), there is no evidence of an association between help and support from the manager and the outcomes under analysis. Furthermore, colleagues' help and support only seems to decrease the probability of burnout by 18p.p., partly through the reduction of emotional burnout (-5p.p.). Contrarily, Nappo (2019) found that colleagues cooperation and manager support decrease the probability of workers reporting anxiety among EU15 countries, including Portugal. Nevertheless, results may be linked with difficulties in working as a team or in accepting others' experience. Additionally, the adjustments caused by the pandemic, namely remote work, may explain the inexistence of a positive effect of social support on health.

Overall, H2.2 (consulted objectives) and H2.9 (paid appropriately) hold for 2 of the 3 outcomes whereas H2.10 (career prospects) and H2.11 (colleagues help support) are confirmed for burnout, and H2.1 (influence decisions) only holds for anxiety. Finally, H.3.3 (involved in improve work), H2.4 to H2.6 (autonomy), H2.7 (job security), H2.8 (work recognition) and H2.12 (manager help support) are rejected (Appendix 6, Table 6.2).

8.3. Controls

Regarding individual demographic characteristics, results show that female have higher probability of reporting all mental health issues under analysis, which is confirmed by Nappo (2019) (Appendix 7). In terms of household size, an additional member in the household decreases the probability of reporting anxiety which may be explained by workers' choice regarding work. In fact, Ruscio et al. (2017) found that the prevalence of anxiety was concentrated among female but also among unmarried (i.e. single individuals).

Regarding economic hardship, results corroborate Hajek et al. (2022) who found that individuals with great income difficulties reported increased likelihood of depression and anxiety. Also, individuals living/working in the North and Center face an increased probability of anxiety and burnout, respectively. And, for both regions, there is also an increased likelihood of developing depression. In a similar vein, Pinto-Meza et al. (2013) found inequalities in the prevalence of mental disorders explained by urbanicity. Finally, individuals working in the tertiary sector face reduced probability of reporting anxiety whereas those with a permanent contract face reduced probability of reporting both anxiety and burnout which may relate with job security.

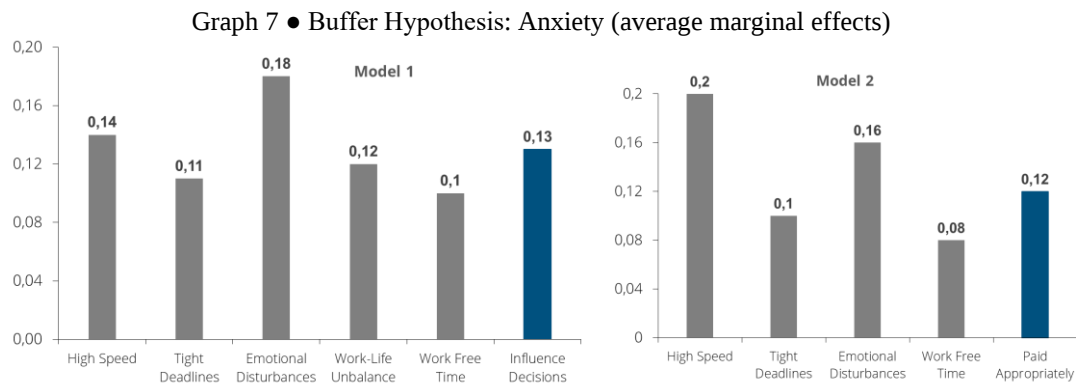
8.4. Hypothesis 3: Buffer Hypothesis

The previous section shows that almost all demands increase the probability of having anxiety, depression and burnout, but only a few set of resources decrease those probabilities. So, besides looking into the coefficients' magnitude, the Wald Test was used to analyse the worst-case scenario where workers started to have all demand effects at a time (all demand variables change from 0 to 1) and where managers "activate" the resource that prove to reduce the probability of each health disorder (in section 8.2).

Looking at the coefficients and at the Wald Test, findings reveal that, in case, workers face all demands considered in this analysis, resources will not be enough to compensate potential adverse effects on health which lead to the conclusion that managers should reduce pressures coming from demand effects (Graph 7 to 10 and Appendix 8).

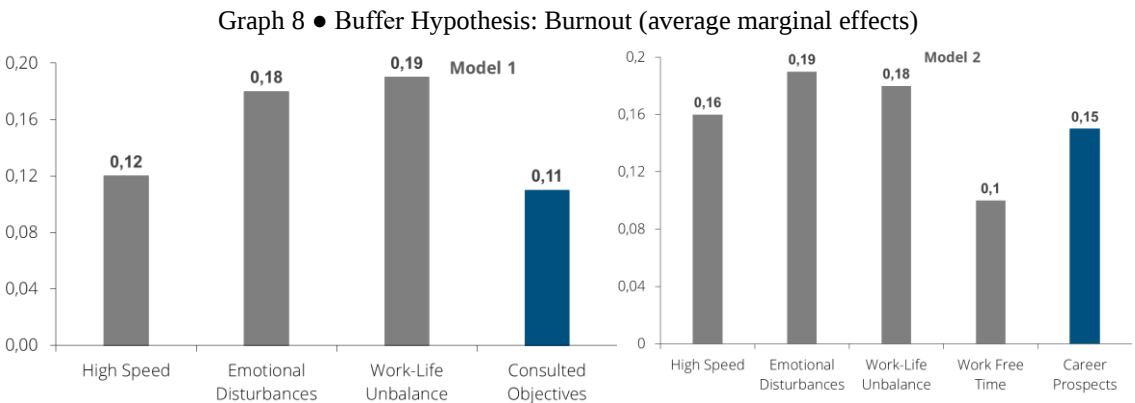
Nevertheless, as not all demands are present in a workplace at a time, another assessment was conducted to understand whether, for each demand, there is a resource that can overcome its potential effect on each health outcome. In this regard, organizational resources (i.e. influence decisions) and rewards (i.e. paid appropriately) can potentially

offset pressures coming from working to tight deadlines, work-life unbalance and working at free time when anxiety is at stake (Graph 7).



Source: *Model 1 - Organizational Resources* and *Model 2 - Rewards* (Appendix 5, Table 5.1 and 5.2)

In the case of burnout, organizational resources (i.e. consulted objectives) cannot offset any of the demands considered and rewards (i.e. career prospects) can only offset pressures coming from work during free time (Graph 8).



Source: *Model 1 - Organizational Resources* and *Model 2 - Rewards* (Appendix 5, Table 5.1 and 5.2)

Thus, managers should try to reduce pressures coming from working at a high speed, exposure to emotional disturbances and work-life unbalance as the association of these stress factors with anxiety and burnout are particularly high and difficult to overcome. Nevertheless, managers should consider the importance of colleagues’ support as it reduces the probability of burnout when workers are exposed to any demand risk factor (Graph 9).

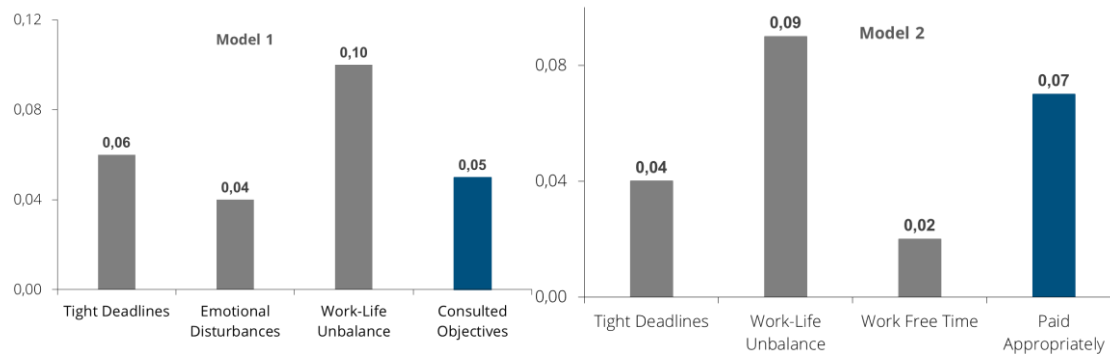
Graph 9 • Buffer Hypothesis: Burnout (average marginal effects)



Source: *Model 3 – Social Support* (Appendix 5, Table 5.3)

For depression, both emotional disturbances and work during free time can be compensated by organizational resources (i.e. consulted objectives) and rewards (i.e. paid appropriately) but the risk remains when workers face a poor work-life balance (Graph 10).

Graph 10 • Buffer Hypothesis: Depression (average marginal effects)



Source: *Model 1) Organizational Resources* and *Model 2) Rewards* (Appendix 5, Table 5.1 and 5.2)

Looking into the Wald Test, for the demand-by-demand cases, it indicates a buffer for almost all cases (Appendix 8).¹⁵ Conclusions drawn in this research are only regarding the cases in which the Wald Test confirms coefficients' analysis.

Overall, although there is not a common resource that act as a moderator of the three outcomes taken together, this research gives an insight into the importance of preventing anxiety, depression, and burnout by giving workers the ability to influence decisions,

¹⁵ Results from the Wald Test slightly differ from the ones obtained when looking at the coefficients which may be related with the fact that the Wald Test is based on the coefficients of the latent variables (not on the marginal effects) and, besides using the sum of the coefficients, the test also uses the variances and covariances of the estimated parameters.

consulting them before setting objectives and providing them good career prospects, respectively. Also, there is evidence that paying workers appropriately may prevent both anxiety and depression, and social support from colleagues is an important resource to avoid burnout.

9. Robustness Checks

Besides the stepwise approach already described, new regressions were conducted to evaluate coefficients' consistency across models while analysing the potential impact of workers' workplace size and teleworking on their health, particularly at a time where remote work rose dramatically. Research shows that the probability of workers reporting anxiety is increased for those working in medium-sized enterprises (11p.p.-13p.p.) (Appendix 9 and 13). Workers with some degree of telework face higher probability of reporting anxiety (12p.p.-13p.p.) and depression (2p.p.-5p.p.), while they face lower probability of having burnout (around -8p.p. and -14p.p.) (Appendix 10 and 13). In this regard, this research shows that telework may bring positive effects (on burnout), potentially through reduced commuting times, but also negative effects (on anxiety and depression) probably due to social distance from colleagues or in case working schedules are not respected.

Additionally, the control variable "tertiary sector" was replaced by NACE list of activities aggregated into broad groups. There is evidence that workers in financial services face increased probability of anxiety (26p.p.) as well as those in agriculture (48p.p.) and construction (22p.p.) (Appendix 11 and 13). Also, working in the educational and health sectors increase likelihood of burnout (13p.p.-14p.p.), specifically emotional and emotional & physical burnout, which is plausible as these workers have a direct impact on clients' lives and develop affective commitment and emotional ties with them (Santos et. al, 2017). Finally, depression is less likely among individuals in agriculture (around -

40p.p. and -70p.p.) and, although with a lower magnitude, among those in commerce and hospitality, educational and health sectors (around -4p.p. and -9p.p.).

Finally, the control variable “high education” was replaced by all educational categories. Results show that workers with middle education face decreased probability of the three outcomes (around -3p.p. and -16p.p.) whereas workers with high education only face decreased probability of burnout (-17p.p.) (Appendix 12 and 13).

Overall, conclusions drawn previously regarding the relationship between working conditions and anxiety, depression, and burnout hold, both in terms of significance and magnitude (Appendix 14). Some exceptions that are worth to mention are autonomy outcomes’ that, in NACE models, seems to reduce the probability of depression and increase the probability of anxiety, probably linked to higher responsibility.

10. Strengths & Limitations

Despite the paper’s contribution to the literature, some limitations should be considered.

Firstly, the heavy reliance on self-reported measures may introduce response bias given personal features, social desirability, stigma and misinformation. Moreover, since several symptoms are common to the outcomes under analysis, there is the possibility of wrong self-diagnosis. Thus, to confirm the validity of the results, clinical data and more objective measures are needed. Nevertheless, self-reported data seemed to be the most appropriate avenue to capture employees’ perceptions and experiences in the labour market.

Secondly, the lack of data on personal resources did not allow to study the impact of individuals’ personality traits, such as self-esteem and optimism, which may influence workers’ perceptions of available resources and impact on health outcomes (Xanthopoulou et al., 2007; Kahn and Byosiére, 1992). Also, individuals’ historical illnesses, genetics and lifestyle may be a source of omitted variables bias.

Thirdly, the paper is based on Portuguese data for 2021 which may compromise external validity. Thus, further research should replicate the analysis to a pre- and post-pandemic period as well as among other countries to test whether results can be generalized.

Another limitation arises from the correlational and cross-sectional design of the study.¹⁶ Also, the estimates of the probit econometric analyses define a correlation rather than a cause-and-effect relation, that is, causation can go in both directions.¹⁷ Actually, although longitudinal studies tend to be used to avoid reverse causation, in a review conducted by Zapf et al. (1996), 33% of the longitudinal studies examining the existence of reverse causation in the relationship stressors-strain did find evidence of it.

Lastly, the parameters of the models are estimated using maximum likelihood estimation and assuming that the error term follows a normal distribution. If this assumption is not verified, the maximum likelihood problem would not be correctly defined and the parameter estimates would be inconsistent.

For further research, given that the current study does not establish a statistical relationship between the three outcomes, a possibility could be to examine such relationship using a Structural Equation Modelling (SEM) approach.¹⁸ Also, it would be interesting to test the validity of the buffer effect through interaction terms and to understand whether the relationship between resources and health outcomes is curvilinear. As Warr (1987) stated that resources improve health up to a plateau level, acknowledging this threshold level would be important to optimize treatment plans.

Nevertheless, to the best of our knowledge, this is the first paper evaluating the association

¹⁶ Employees are surveyed cross-sectionally in each wave and countries are sampled in multiple waves. Therefore, the different waves of the survey include a comparable set of questions and countries which allows time-series analysis and cross-country comparability, though a panel dimension is not available.

¹⁷ For example, healthier workers may face more possibilities of being employed in jobs with better working conditions, which, in turn, are likely to decrease workers' health problems.

¹⁸ SEM is a model that brings a flexible specification as nearly anything can be allowed to be correlated or constrained to be uncorrelated and allows to find a bunch of causal connections among variables.

between working conditions and anxiety, depression, and burnout among Portuguese workers', through updated data from the EWCTS 2021. Also, the richness of the Eurofound's survey allowed the current study to be based on the JD-R Model, an occupational stress model that better captures the complex relationship between work and health.

11. Conclusions & Policy Implications

Concerns about health problems have emerged during the last decades given that continuous transformations in the labour market significantly changed the work experience and the nature of the health problems. Also, the psychological burden and work-life adjustments caused by the pandemic highlight the importance of studying mental disorders which have shown to occur at any occupation and hierarchical level.

This paper focus on three mental health problems – anxiety, depression, and burnout – and its potential drivers at work. As demonstrated, while almost all demands significantly increase the probability of the disorders under analysis, only few resources prove to reduce it and, even fewer, are able to cope with such demanding conditions. In the worst-case scenario, available resources are not sufficient to compensate all demand effects at the same time, regardless the outcome variable considered. Thus, managers' priority should be to identify and reduce the demand factors associated with health risks.

According to this study, managers should particularly avoid imposing pressures through working at high speed as, according to descriptive statistics, almost all Portuguese workers reported this work demand (77%) (Appendix 2, Table 2.5). Also, managers should guarantee a positive, inclusive, and ethical work environment with tolerance and respect as the presence of emotional disturbances is negatively related with health. Finally, working time limits would allow workers to stablish boundaries between

professional and private life promoting work-life balance while reducing work-family conflict. These demands should be a priority for managers as their association with health risks is particularly high and difficult to overcome.

Nevertheless, in case certain demands are intrinsic to certain occupational settings, findings suggest that, in some cases, *managers can offset the negative relation between job demands and workers' health by giving them resources as coping mechanism*. In fact, although there is not a common resource that act as a moderator of the three outcomes, this research gives an insight into the importance of preventing anxiety, depression, and burnout by giving workers the ability to influence decisions, consulting them before setting objectives and providing them good career prospects, respectively. Also, there is evidence that paying workers appropriately may prevent both anxiety and depression and may be particularly important in Portugal as, according to the descriptive statistics, less than half of the workers reported feeling paid properly (45%) (Appendix 2, Table 2.5). Social support from colleagues is particularly important in reducing the probability of burnout for workers exposed to any demand risk factor.

As stated by the Inducements-Contributions Exchange Theory (March and Simon, 1958), the workers' contribution toward an organization dependent upon the organization's inducement toward them. Thus, workers must feel their effort and achievements are acknowledged, either through performance-related payments or by giving workers good prospects for career development. Also, supportive and participative work environments based on collaboration among colleagues and involvement in the decision-making process may give workers a feeling of relatedness and competence which, according to Self-Determination Theory (Deci and Ryan, 1985), lead to fewer health problems and

greater well-being.¹⁹

Overall, managers should design work demands in a way that individuals can fulfil them without damaging their health, as well as find proper resources that workers can use as coping mechanisms when dealing with demands. Indeed, according to Fleming (2023), the most effective way to improve employee mental health is by reducing stressors and improving structural aspects of work, rather than investing in individual-level wellbeing interventions (e.g. mindfulness, stress management classes and well-being apps) who were found to be ineffective to workers wellbeing or job satisfaction in the UK.

Additionally, managers should constantly invest in workplace interventions and monitor them in order to prevent health risks. Although, investing in new resources to cope with work' demands may be seen as costly, and long-term benefits may not be visible, the consequences of poor working conditions can be even costlier for organizations, the economy and the society as a whole. More than ever, occupational health should be the focus of managers and policymakers when designing occupational interventions to prevent and promote mental health at work.

¹⁹ Employee involvement may be established either through direct and/or representative channels. Trade unions, works councils, and health and safety committees that ensure employee voice and representation, are crucial as collective means of expression are stronger than that of individual workers.

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Appendix

Appendix 1

Table 1.1 – Percentage of respondents assigned to each subset of questions in Module 1 and Module 2

		M2 (Thematic Modules)		
		M2A	M2B	Total
M1 (Job Quality Modules)	M1A	17%	16%	33%
	M1B	17%	16%	33%
	M1C	16%	18%	34%
	Total	50%	50%	100%

Appendix 2

Table 2.1 – Descriptive statistics: individual and individual firm characteristics' (% of the sample)

			NUTS II		
			Freq	Percent	
			Norte	457	31%
			Algarve	57	4%
			Centro	306	21%
			Area Metrop Lisboa	494	34%
			Alentejo	78	5%
			RA Açores	31	2%
			RA Madeira	26	2%
			Other Jobs	Freq	Percent
			0	1346	93%
			1	103	7%
Female			Freq	Percent	
0			718	50%	
1			731	50%	
Age Groups			Freq	Percent	
17-24			124	9%	
25-34			329	23%	
35-44			419	29%	
45-55			417	29%	
56+			160	11%	
Seniority			Freq	Percent	
Less than a year			193	13%	
1 to 4 years			423	29%	
4 to 9 years			226	16%	
10 or more			602	42%	
Education			Freq	Percent	
Primary			108	7%	
Secondary			734	51%	
Tertiary			607	42%	

Full Time			Freq	Percent	
0			86	6%	
1			1362	94%	
Sector of Employment			Freq	Percent	
Private sector			1046	72%	
Public sector			338	23%	
Joint private-public org.			19	1%	
Not for profit /NGO			18	1%	
Other			25	2%	
Type of Contract			Freq	Percent	
Unlimited duration			1167	81%	
Temporay employment agency			35	2%	
Apprenticeship			16	1%	
Fixed-term			194	13%	
No contract			24	2%	
Other			13	1%	
Occupation (NACE)			Freq	Percent	
Tertiary			1078	74%	
Secondary			344	24%	
Primary			27	2%	

Telework			Freq	Percent	
0			889	61%	
1			560	39%	
Telework			Freq	Percent	
Employer premises			464	32%	
Employer premises (teleworkability)			425	29%	
Full-time telework			116	8%	
Occasional telework			174	12%	
Partial telework			208	14%	
Other			62	4%	
Workplace Size			Freq	Percent	
Microenterprise (1-9)			443	32%	
Small enterprises (10-49)			476	34%	
Medium-sized enterprises (50-249)			310	22%	
Large enterprises (250+)			164	12%	

Table 2.2 – Descriptive statistics: individual characteristics (mean variables)

	Mean	Std. Deviation	Max	Min
Age	41	11	17	75
Seniority	12	10	1	77
Household Size	3	1	1	9

Table 2.3 – Descriptive statistics: job strain index (% of the sample)

	Freq	Percent
Extreme Strain	37	3%
High Strain	109	8%
Moderate Strain	264	18%
Low Resourced	373	26%
Moderately Resourced	330	23%
Highly Resourced	336	23%
	Freq	Percent
Strained Jobs	410	29%
Resourced Jobs	1039	71%

Table 2.4 – Descriptive statistics: job strain index (description)

Job Strain Degree Index (Eurofound) composed by seven indicators: 1. Physical Environment; 2. Social Environment; 3. Work Intensity; 4. Working Time Quality; 5. Skills and Discretion; 6. Prospects; 7. Rewards	Extremely strained jobs	Jobs where the gap between the proportion of job demands and the proportion of job resources is greater than 50% (e.g. 5 out of 6 demands and only 3 out of 8 resources)
	Highly strained jobs	Jobs where the gap between the proportion of job demands and the proportion of job resources is greater than 25%, but no greater than 50% (e.g. 3 out of 6 demands and only 1 out of 8 resources)
	Moderately strained jobs	Jobs where the proportion of job demands is greater than the proportion of job resources, but no greater than 25%
	Poorly resourced jobs	Jobs where the proportion of job demands is lower than the proportion of job resources, but the gap is less than 25%
	Moderately resourced jobs	Jobs where the proportion of job demands is lower than the proportion of job resources, but the gap is greater than 25% but less than 50%
	Highly resourced jobs	Jobs where the proportion of job demands is lower than or matches the proportion of job resources, and the gap is greater than 50%.

Table 2.5 – Descriptive statistics: individuals’ exposure to demands and resources at work (% of the sample)

High Speed	77%
Tight Deadlines	68%
Emotional Disturbances	38%
Dealing Clients	65%
Work-Life Unbalance	21%
Work Free Time	41%
Influence Decisions	82%
Consulted Objectives	78%
Involved Improve Work	79%
Autonomy Method Work	74%
Autonomy Order Tasks	73%
Autonomy Speed Work	73%
Job Security	82%
Work Recognition	76%
Paid Appropriately	45%
Career Prospects	48%
Colleagues Help Support	96%
Manager Help Support	91%

Appendix 3

Table 3.1 – Description of outcome variables

Variable (Module)	Question from EWCTS	Original Variable	Final Variable
Anxiety (M2B)	Q78. Over the last 12 months, did you have any of the following health problems? H. Anxiety	dummy variable	anxiety=1 if workers have felt anxious over the last 12 months; anxiety= 0 otherwise
Depression (core) 1. depression 2. at risk of depression 3. normal status	Q87. Please indicate for each of the five statements which is closest to how you have been feeling over the past two weeks: A. I have felt cheerful and in good spirits; B. I have felt calm and relaxed; C. I have felt active and vigorous; D. I woke up feeling fresh and rested; and E. My daily life has been filled with things that interest me ²⁰	6-point scale ranging from “all of the time” to “at no time”	depression=1 if workers are depressed (WHO-5 index ≤ 28); depression=2 if workers are at risk of depression ($28 \leq$ WHO-5 index ≤ 50); and depression=3 if workers are in normal status ($50 \leq$ WHO-5 Index ≤ 100)
Burnout (M2A)	Q90. The following statements are about how you feel about your (main paid) job. For each statement, please tell me how often you feel this way... D. I feel physically exhausted at the end of the working day; G. I feel emotionally drained by my work	5-point scale ranging from “always” to “never”	burnout=1 if workers have felt emotionally drained by their work and/or physically exhausted at the end of the working day; burnout=0 otherwise
Burnout (M2A) 1. emotional burnout 2. physical burnout 3. physical and emotional burnout 4. no burnout	Q90. The following statements are about how you feel about your (main paid) job. For each statement, please tell me how often you feel this way... D. I feel physically exhausted at the end of the working day; G. I feel emotionally drained by my work ²¹	5-point scale ranging from “always” to “never”	burnout=1 if workers have felt (always or often) emotionally drained by their work; burnout=2 if workers felt (always or often) physically exhausted at the end of the working day; burnout=3 if workers have felt (always or often) emotionally drained by their work and (always or often) physically exhausted at the end of the working day; and burnout=4 if workers have (sometimes, rarely or never) felt emotionally drained by their work and (sometimes, rarely or never) physically exhausted at the end of the working day

²⁰ Depression was measured through the WHO Wellbeing-Index composed by 5 items presented in Appendix 3, Table 3.1. According to Topp et al. (2015), the WHO-5 is a generic and widely used well-being scale that has adequate validity as a screening tool for depression and as an outcome measure in clinical trials. Some authors use WHO-5 cut-off score ≤ 28 when screening for major (or clinical) depression and WHO-5 cut-off score ≤ 50 when screening for major (or clinical) depression. Eurofound considered that workers were depressed when WHO-5 index ≤ 28 , at risk of depression when $28 \leq$ WHO-5 index ≤ 50 and in normal status when $50 \leq$ WHO-5 index ≤ 100 .

²¹ Even though the Maslach Burnout Inventory (MBI) (Maslach et al., 1997) is the most widely used indicator to assess burnout, this paper focus on one of the two core dimensions of burnout. According to the Eurofound (2021), the role of exhaustion given long-term exposure to work stressors is common among the few studies that explore burnout. Also, in the EWCS 2015 analysis, the Eurofound realised that exhaustion captured all the variance.

Table 3.2 – Description of explanatory variables: job demands

Variable (Module)	Question from EWCTS	Original Variable	Final Variable
Job Demands			
Work Intensity: Quantitative Demands			
Working at High Speed (core)	Q49A. Does your (main paid) job involve working at very high speed?	5-point scale ranging from “always” to “never”	high_speed=1 if workers’ job (always, often or sometimes) involves working at very high speed; high_speed=0 otherwise
Working to Tight Deadlines (core)	Q49B. Does your (main paid) job involve working to tight deadlines?	5-point scale ranging from “always” to “never”	tight_deadlines=1 if workers’ job (always, often or sometimes) involves working to tight deadlines; tight_deadlines=0 otherwise
Work Intensity: Qualitative or Emotional Demands			
Dealing with Clients (core)	Q30H. Please tell me, using the same scale, does your (main paid) job involve dealing directly with people who are not employees at your workplace such as customers, passengers, pupils, patients etc.?	5-point scale ranging from “always” to “never”	dealing_clients=1 if workers’ job (always, often or sometimes) involve dealing directly with people who are not employees at your workplace such as customers, passengers, pupils, patients etc.; dealing_clients=0 otherwise
Exposure to Emotional Disturbances (core)	Q30H. Please tell me, using the same scale, does your (main paid) job involve being in situations that are emotionally disturbing for you?	5-point scale ranging from “always” to “never”	emotional_disturbances=1 if workers’ job (always, often or sometimes) involve being in situations that are emotionally disturbing; emotional_disturbances=0 otherwise
Work Extensity: Working Time Arrangements			
Working During Free Time (core)	Q46. Over the last 12 months in your (main paid) job, how often have you worked in your free time to meet work demands?	5-point scale ranging from “daily” to “never”	work_free_time=1 if workers have worked (daily, several times a week or several times a month), over the last 12 months, to meet work demands; work_free_time=0 otherwise
Work-Life Unbalance (core)	Q44. In general, considering all jobs together, how do your working hours fit in with your family or social commitments outside work?	4-point scale ranging from “very well” to “not well at all”	worklife_unbalance =1 if workers’ working hours not fit well (not very well or not well at all) in family or social commitments outside work; worklife_unbalance =0 otherwise

Table 3.3 – Description of explanatory variables: job resources

Variable (Module)	Question from EWCTS	Original Variable	Final Variable
Job Resources			
Organizational Resources: Organizational Participation			
Influence Decisions (core)	Q61. For each of the following statements, please select the response which best describes your work situation in your (main paid) job. N. You can influence decisions that are important for your work	5-point scale ranging from “always” to “never”	influence_decisions=1 if workers can (always, often or sometimes) influence decisions that are important for their work; influence_decisions=0 otherwise
Consulted Objectives (M1A, M1B)	Q61. For each of the following statements, please select the response which best describes your work situation in your (main paid) job. C. You are consulted before objectives are set for your work	5-point scale ranging from “always” to “never”	consulted_objectives=1 if workers are (always, often, or sometimes) consulted before objectives are set for their work; consulted_objectives=0 otherwise
Involved in Improve Work (M1A, M1B)	Q61. For each of the following statements, please select the response which best describes your work situation in your (main paid) job. D. You are involved in improving the work organisation or work processes of your department or organisation	5-point scale ranging from “always” to “never”	involved_improve_work=1 if workers are (always, often or sometimes) involved in improving the work organisation or work processes of their department or organisation; involved_improve_work=0 otherwise
Organizational Resources: Autonomy			
Autonomy Order Tasks (M1A, M1B)	Q54A. In your (main paid) job, are you able to choose or change your order of tasks?	5-point scale ranging from “always” to “never”	autonomy_order_tasks=1 if workers are (always, often or sometimes) able to choose or change their order of tasks; autonomy_order_tasks=0 otherwise
Autonomy Methods Work (core)	Q54B. In your (main paid) job, are you able to choose or change your methods of work?	5-point scale ranging from “always” to “never”	autonomy_methods_work=1 if workers are (always, often or sometimes) able to choose or change their methods of work; autonomy_methods_work=0 otherwise
Autonomy Speed Work (M1A, M1B)	Q54C. In your (main paid) job, are you able to choose or change your speed or rate of work?	5-point scale ranging from “always” to “never”	autonomy_speed_work=1 if workers are (always, often or sometimes) able to choose or change their speed or rate of work; autonomy_speed_work=0 otherwise
Rewards			
Job Security (core)	Q89. To what extent do you agree or disagree with the following statements about your (main paid) job? G. I might lose my job in the next 6 months	5-point scale ranging from “strongly agree” to “strongly disagree”	job_security=1 if workers agree (strongly agree or agree) that they might lose their job in the next 6 months; job_security=0 otherwise

Variable (Module)	Question from EWCTS	Original Variable	Final Variable
Job Resources			
Rewards			
Work Recognition (core)	Q89. To what extent do you agree or disagree with the following statements about your (main paid) job? C. I receive the recognition I deserve for my work	5-point scale ranging from “strongly agree” to “strongly disagree”	work_recognition=1 if workers agree (strongly agree or agree) that they receive the recognition they deserve for their work; work_recognition=0 otherwise
Paid Appropriately (M1A, M1C)	Q89. To what extent do you agree or disagree with the following statements about your (main paid) job? A. Considering all my efforts and achievements in my job, I feel I get paid appropriately	5-point scale ranging from “strongly agree” to “strongly disagree”	career_prospects=1 if workers agree (strongly agree or agree) that, considering all their efforts and achievements in their job, they feel they get paid appropriately; career_prospects=0 otherwise
Career Prospects (M1A, M1C)	Q89. To what extent do you agree or disagree with the following statements about your (main paid) job? B. My job offers good prospects for career advancement	5-point scale ranging from “strongly agree” to “strongly disagree”	career_prospects=1 if workers agree (strongly agree or agree) that their job offers good prospects for career advancement; career_prospects=0 otherwise
Social Resources: Social Support			
Colleagues Help Support (core)	Q61. Thinking about your main paid job, for each of the following statements, please select the response which best describes your work situation. A. Your colleagues helps and supports you	5-point scale ranging from “always” to “never”	colleagues_help_support=1 if workers feel their colleagues (always, often or sometimes) helps and supports them; colleagues_help_support=0 otherwise
Manager Help Support (M1B, M1C)	Q61. Thinking about your main paid job, for each of the following statements, please select the response which best describes your work situation. A. Your manager helps and supports you	5-point scale ranging from “always” to “never”	manager_help_support=1 if workers feel their manager (always, often or sometimes) helps and supports them; manager_help_support=0 otherwise

Table 3.4 – Description of control variables

Variable (Module)	Question from EWCTS	Original Variable	Final Variable
Individual Demographic Characteristics			
Age (core)	Q92a. How old you are?	continuous variable	age=workers' age
Gender (core)	Q3a Could you tell me the gender of this person?	dummy variable	female=1 if female; female=0 otherwise
Household Size (core)	Q1. Including yourself, can you please tell me how many people live in this household?	continuous variable	hh_size=number of people that live in the workers' household
Individual Socioeconomic Position			
Education (core)	Q106. What is the highest level of education or training that you have successfully completed?	International Standard Classification of Education (ISCED) code list	high_education=1 if workers have high education (ISCED 6–9: tertiary education); high_education=0 otherwise
Sector of Activity (core)	NACE (1 digit)	Statistical Classification of Economic Activities in the European Community (NACE) code list	tertiary_sector=1 if workers work in the tertiary sector (NACE 7-21); D=0 otherwise
Type of Contract (core)	Q11. What kind of employment contract do you have in your (main paid) job?	1. Contract of unlimited duration; 2. Contract of limited duration; 3. A temporary employment agency contract; 4. An apprenticeship or other training scheme; 5. No contract; 6. Other	permanent_contract=1 if workers have a contract of unlimited duration; permanent_contract = 0 otherwise
Sector of Employment (core)	Q14. Are you working in...?	1. The private sector; 2. The public sector; 3. A joint private-public organisation or company; 4. The not-for-profit sector or an NGO; 5. Other	private_sector=1 if workers work in the private sector; private_sector=0 otherwise
Region of Work/Living (core)	NUTS II (2 digits)	1. North; 2. Algarve; 3. Center; 4. Lisbon Metropolitan Area; 5. Alentejo; 6. Autonomous Region of Azores; 7. Autonomous Region of Madeira	North=1 if workers are from the North of Portugal; North=0 otherwise Center=1 if workers are from the Center of Portugal (including the Metropolitan Area of Lisboa); Center=0 otherwise
Make Ends Meet (M2B)	Q100. A household may have different sources of income and more than one household member may contribute to it. Thinking of your household's total monthly income, is your household able to make ends meet..?	6-point scale ranging from “very easily” to “with great difficulty”	make_ends_meet=1 if workers report that their household makes ends meet very easily, easily or fairly easily; make_ends_meet=0 otherwise

Variable (Module)	Question from EWCTS	Original Variable	Final Variable
<i>Individual Socioeconomic Position</i>			
Workplace Size (core)	Q16a. How many people in total work at your workplace, that is at the local site where you work?	1. SMEs: microenterprises (1- 10); 2. SMEs: small enterprises (10-49); 3. SMEs: medium-sized enterprises (50-249); 4. Large enterprises (250+) (Eurostat)	workplace_size=1 if 1 to 9 employees work in workers' workplace; workplace_size=2 if 10 to 49 employees work in workers' workplace; workplace_size=3 if 50 to 249 employees work in workers' workplace; workplace_size=4 if more than 250 employees work in workers' workplace
Telework (core)	degree of telework	1. Employer's premises (not teleworkable); 2. Employer's premises (some degree of telework); 3. Full-time telework; 4. Occasional telework; 5. Partial telework (hybrid); 6. Other ²²	telework=1 if workers have some degree of telework (full-time teleworkers; occasional teleworkers; partial teleworkers (hybrid); and other); telework=0 otherwise
NACE broad groups	NACE (1 digit)	Statistical Classification of Economic Activities in the European Community (NACE) code list	i.NACE=1 if workers work in agriculture (NACE 1); i.NACE=2 if workers work in commerce and hospitality (NACE 7 and 9); i.NACE=3 if workers work in construction (NACE 6); i.NACE=4 if workers work in education (NACE 16); i.NACE=5 if workers work in financial services (NACE 11-12); i.NACE=6 if workers work in health (NACE 17); i.NACE=7 if workers work in industry (NACE 2-5); i.NACE=8 if workers work in other services (NACE 10, 13-14, 18-21); i.NACE=9 if workers work in public administration (NACE 15); i.NACE=10 if workers work in transportation and storage (NACE 8)

²² Workers considered full-time teleworkers when always working from home, partial teleworkers when often working from home and occasional teleworkers when sometimes or rarely working from home. Those that never work from home, that is, work in their employer's premises were differentiated into 1) those who work from their employer's premises but whose job is teleworkable and 2) those who work from their employer's premises and whose job is non-teleworkable. Additionally, the category other includes workers in teleworkable jobs who use ICT but work in other locations with varying frequency and workers who telework but not from home and who cannot therefore be conceptually included in the other three categories.

Appendix 4

Table 4.1 – Standard, ordered and multinomial probit estimates for *Model 1 – Organizational Resources*

Model 1 - Organizational Resources							
Regression output (probit estimates)	Anxiety	Depression	Burnout	Emotional Burnout	Physical Burnout	Emotional & Physical Burnout	No burnout
Work Intensity: Quantitative Demands							
High Speed	0,47***	-0,22	0,38**	0,22	0,55**	0,50	base outcome
Tight Deadlines	0,27*	-0,35*	-0,01	0,26	-0,24	1,05***	
Work Intensity: Qualitative or Emotional Demands							
Dealing Clients	-0,01	-0,15	0,21	-0,04	0,27	0,44	base outcome
Emotional Disturbances	0,51***	0,31*	0,48***	0,92***	0,35*	1,33***	
Work Extensy: Work Time Arrangement							
Work-Life Unbalance	0,36**	-0,86***	0,52***	0,418729	0,63***	0,91***	base outcome
Work Free Time	0,31**	-0,14	0,11	0,28	0,11	0,25	
Organizational Resources: Organizational Participation							
Influence Decisions	-0,37**	0,23	0,03	-0,28	0,02	0,16	base outcome
Consulted Objectives	-0,07	0,41**	-0,20	0,75	-0,20	-0,85***	
Involved Improve Work	-0,27	0,03	-0,02	-0,22	-0,08	0,22	
Organizational Resources: Autonomy							
Autonomy Method Work	0,30	0,14	0,26	0,60	0,48*	-0,20	base outcome
Autonomy Order Tasks	-0,19	-0,01	-0,26	-0,27	-0,33	-0,36	
Autonomy Speed Work	-0,05	0,19	-0,15	-0,19	-0,26	-0,07	
Rewards							
Job Security	-0,33*	-0,01	-0,39**	-1,07***	-0,45*	-0,42	base outcome
Work Recognition	0,08	0,18	-0,27*	-1,16***	-0,10	-0,36	
Controls							
Female	0,31**	-0,33**	0,26**	0,65**	0,21	0,76***	base outcome
Age	0,00	0,00	0,01	0,00	0,01	0,01	
High Education	0,22	-0,21	-0,02	-0,43	0,05	-0,18	
Household Size	-0,10*	-0,08	0,03	0,03	0,01	0,10	
Make Ends Meet	-0,32**	0,44***	N/A	N/A	N/A	N/A	
North	0,31	-0,46*	0,13	0,14	0,33	-0,23	
Center	0,11	-0,43*	0,33	0,03	0,57*	0,27	
Permanent Job	-0,05	-0,03	-0,13	0,21	-0,22	-0,26	
Private Sector	-0,11	-0,02	0,01	-0,27	0,07	-0,11	
Terciary Sector	0,01	-0,03	-0,19	-0,30	-0,20	-0,51	
_cons	0,11	N/A	-0,75	-1,63	-1,36*	-3,33***	
Select							
Age	-0,00	-0,05***	N/A	N/A	N/A	N/A	base outcome
_cons	-0,32**	4,03***	N/A	N/A	N/A	N/A	
# Observations Selected	437	434	473	473			
# Observations Non-Selected	780	12	N/A	N/A			
# Observations	1217	446	N/A	N/A			

Significance level: *** $p < 0.001$; ** $p < 0.05$; * $p < 0.1$; Heckman model was used for anxiety and depression to correct for selection bias.

Table 4.2 – Average marginal effects for *Model 1 –Organizational Resources*

Model 1 - Organizational Resources									
Regression output (marginal effects - dy/dx)	Anxiety	Depression	At Risk of Depression	Normal Status	Burnout	Emotional Burnout	Physical Burnout	Emotional & Physical Burnout	No burnout
Work Intensity: Quantitative Demands									
High Speed	0,15***	0,03	0,03	-0,06	0,12**	-0,00	0,10**	0,02	-0,12**
Tight Deadlines	0,09*	0,04*	0,05*	-0,09*	-0,00	0,01	-0,10**	0,11***	-0,02
Work Intensity: Qualitative or Emotional Demands									
Dealing Clients	-0,00	-0,02	-0,02	0,04	0,07	-0,01	0,05	0,03	-0,07
Emotional Disturbances	0,17***	0,04*	0,04*	-0,08*	0,15***	0,04*	0,01	0,10***	-0,15***
Work Extensity: Work Time Arrangement									
Work-Life Unbalance	0,12**	0,10***	0,12***	-0,21***	0,17***	0,00	0,10**	0,06**	-0,16***
Work Free Time	0,10**	0,02	0,02	-0,03	0,03	0,01	0,01	0,02	-0,04
Organizational Resources: Organizational Participation									
Influence Decisions	-0,12**	-0,03	-0,03	0,06	0,01	-0,02	0,00	0,02	-0,00
Consulted Objectives	-0,02	-0,05**	-0,06**	0,10**	-0,06	0,06**	-0,03	-0,08***	0,05
Involved Improve Work	-0,09	-0,00	-0,00	0,01	-0,01	-0,01	-0,02	0,03	0,01
Organizational Resources: Autonomy									
Autonomy Method Work	0,10	-0,02	-0,02	0,03	0,09	0,03	0,10*	-0,04	-0,09
Autonomy Order Tasks	-0,06	0,00	0,00	-0,00	-0,08	-0,01	-0,06	-0,02	0,08
Autonomy Speed Work	-0,02	-0,02	-0,03	0,05	-0,05	-0,01	-0,05	0,00	0,05
Rewards									
Job Security	-0,11*	0,00	0,00	-0,00	-0,13**	-0,05***	-0,06	-0,01	0,13**
Work Recognition	0,02	-0,02	-0,02	0,04	-0,09*	-0,07***	0,01	-0,02	0,07
Controls									
Female	0,10**	0,04**	0,04**	-0,08**	0,09**	0,03	0,01	0,06**	-0,09**
Age	0,00	-0,00	-0,00	0,00	0,00	-0,00	0,00	0,00	-0,00
High Education	0,07	0,02	0,03	-0,05	-0,01	-0,03	0,03	-0,01	0,01
Household Size	-0,03*	0,01	0,01	-0,02	0,01	0,00	-0,00	0,01	-0,01
Make Ends Meet	-0,10**	-0,05***	-0,06***	0,11***	N/A	N/A	N/A	N/A	N/A
North	0,10	0,05*	0,06*	-0,11*	0,04	0,00	0,08	-0,03	-0,05
Center	0,04	0,05*	0,06*	-0,10*	0,11	-0,01	0,12*	0,00	-0,11
Permanent Job	-0,01	0,00	0,00	-0,01	-0,04	0,02	-0,04	-0,02	0,04
Private Sector	-0,03	0,00	0,00	-0,00	0,00	-0,02	0,02	-0,01	0,00
Tertiary Sector	0,00	0,00	0,00	-0,01	-0,06	-0,01	-0,02	-0,04	0,07
# Observations	437	437			473	473			

Significance level: *** $p < 0.001$; ** $p < 0.05$; *** $p < 0.1$

Table 4.3 – Standard, ordered and multinomial probit estimates for *Model 2 – Rewards*

Model 2 - Rewards							
Regression output (probit estimates)	Anxiety	Depression	Burnout	Emotional Burnout	Physical Burnout	Emotional & Physical Burnout	No burnout
Work Intensity: Quantitative Demands							
High Speed	0,61***	-0,27	0,56***	0,58	0,78***	0,65	base outcome
Tight Deadlines	0,26*	-0,26	0,02	-0,07	-0,12	0,61*	
Work Intensity: Qualitative or Emotional Demands							
Dealing Clients	-0,13	0,12	0,12	-0,02	0,29	-0,10	base outcome
Emotional Disturbances	0,49***	-0,16	0,59***	0,81***	0,46**	1,66***	
Work Extensity: Work Time Arrangement							
Work-Life Unbalance	0,20	-0,83***	0,58***	-0,08	0,88***	0,95***	base outcome
Work Free Time	0,23*	-0,31**	0,31**	0,20	0,57***	0,14	
Organizational Resources: Organizational Participation							
Influence Decisions	-0,23	0,06	0,25	0,67	0,34	-0,03	base outcome
Organizational Resources: Autonomy							
Autonomy Method Work	0,17	0,19	0,13	-0,11	0,34	-0,01	base outcome
Rewards							
Job Security	-0,02	-0,14	-0,19	-0,71**	-0,14	-0,15	base outcome
Work Recognition	0,24	0,14	-0,03	-0,35	0,47*	-0,73**	
Paid Appropriately	-0,42***	-0,67***	-0,15	-0,54	0,02	-0,59*	
Career Prospects	-0,03	0,17	-0,45***	-0,19	-0,82***	-0,32	
Controls							
Female	0,57	-0,60***	0,10	-0,14	0,25	0,15	base outcome
Age	0,01	0,00	0,01	0,03*	0,01	0,02*	
High Education	0,15	-0,02	-0,17	-0,38	-0,24	-0,20	
Household Size	-0,09*	0,04	0,06	0,00	0,07	0,18**	
Make Ends Meet	-0,01	0,06	N/A	N/A	N/A	N/A	
North	0,19	-0,80***	0,16	0,62	0,19	0,07	
Center	0,01	-0,66***	0,42**	0,71	0,61**	0,44	
Permanent Job	-0,36*	0,25	-0,50***	-0,83***	-0,63**	-0,55	
Private Sector	0,01	-0,17	0,05	0,01	0,25	-0,38	
Tertiary Sector	-0,31**	-0,23	-0,21	0,10	-0,38	-0,43	
_cons	-0,68	N/A	-1,58***	-2,95***	-2,97***	-3,48***	
Select							
Female	0,06	0,26	N/A	N/A	N/A	N/A	base outcome
Permanent Job	0,07	omitted	N/A	N/A	N/A	N/A	
Tertiary Sector	-0,08	-0,64*	N/A	N/A	N/A	N/A	
_cons	-0,32**	2,38***	N/A	N/A	N/A	N/A	
# Observations Selected	488	485	477	477			
# Observations Non-Selected	777	12	N/A	N/A			
# Observations	1265	497	N/A	N/A			

Significance level: *** $p < 0.001$; ** $p < 0.05$; * $p < 0.1$; Heckman model was used for anxiety and depression to correct for selection bias.

Table 4.4 – Average marginal effects for *Model 2 – Rewards*

Model 2 - Rewards									
Regression output (marginal effects - dy/dx)	Anxiety	Depression	At Risk of Depression	Normal Status	Burnout	Emotional Burnout	Physical Burnout	Emotional & Physical Burnout	No burnout
Work Intensity: Quantitative Demands									
High Speed	0,20***	0,02	0,04	-0,06	0,17***	0,02	0,12**	0,03	-0,17***
Tight Deadlines	0,09*	0,02	0,04	-0,06	0,01	-0,01	-0,04	0,06*	-0,01
Work Intensity: Qualitative or Emotional Demands									
Dealing Clients	-0,04	-0,01	-0,02	0,03	0,04	-0,01	0,06	-0,02	-0,04
Emotional Disturbances	0,16***	0,01	0,02	-0,04	0,18***	0,03	0,02	0,13***	-0,18***
Work Extensity: Work Time Arrangement									
Work-Life Unbalance	0,06	0,08***	0,12***	-0,19***	0,18***	-0,03	0,14***	0,06***	-0,17***
Work Free Time	0,07*	0,03**	0,04**	-0,07**	0,09**	0,00	0,10***	-0,01	-0,10***
Organizational Resources: Organizational Participation									
Influence Decisions	-0,07	-0,01	-0,01	0,01	0,08	0,04	0,05	-0,02	-0,08
Organizational Resources: Autonomy									
Autonomy Method Work	0,05	-0,02	-0,03	0,04	0,04	-0,01	0,07*	-0,01	-0,04
Rewards									
Job Security	-0,01	0,01	0,02	-0,03	-0,06	-0,05**	-0,01	-0,00	0,05
Work Recognition	0,08	-0,01	-0,02	0,03	-0,01	-0,03	0,13***	-0,08***	-0,02
Paid Appropriately	-0,14***	-0,06***	-0,09***	0,16***	-0,05	-0,03	0,03	-0,05	0,05
Career Prospects	-0,01	-0,02	-0,02	0,04	-0,14***	0,01	-0,15***	-0,00	0,14***
Controls									
Female	0,19***	0,06***	0,08***	-0,14***	0,03	-0,02	0,05	0,01	-0,04
Age	0,00	-0,00	-0,00	0,00	0,00	0,00	0,00	0,00	-0,00*
High Education	0,05	0,00	0,00	-0,01	-0,05	-0,02	-0,03	-0,01	0,06
Household Size	-0,03*	-0,00	-0,00	0,01	0,02	-0,00	0,01	0,01*	-0,02
Make Ends Meet	-0,00	-0,01	-0,01	0,01	N/A	N/A	N/A	N/A	N/A
North	0,06	0,07***	0,11***	-0,19***	0,05	0,04	0,02	-0,01	-0,05
Center	0,00	0,06***	0,09***	-0,15***	0,13**	0,03	0,09*	0,01	-0,14**
Permanent Job	-0,12**	-0,02	-0,03	0,06	-0,15***	-0,04*	-0,09*	-0,02	0,15***
Private Sector	0,00	0,02	0,02	-0,04	0,02	-0,00	0,06	-0,04*	-0,02
Tertiary Sector	-0,10**	-0,02	-0,03	0,05	-0,06	0,02	-0,06	-0,03	0,07
# Observations	489	489			477	477			

Significance level: *** $p < 0.001$; ** $p < 0.05$; *** $p < 0.1$

Table 4.5 – Standard, ordered and multinomial probit estimates for *Model 3 – Social Resources*

Model 3 - Social Resources							
Regression output (probit estimates)	Anxiety	Depression	Burnout	Emotional Burnout	Physical Burnout	Emotional & Physical Burnout	No burnout
Work Intensity: Quantitative Demands							
High Speed	0,44***	-0,03	0,39**	0,64	0,4*	0,82**	base outcome
Tight Deadlines	0,24*	-0,21	-0,06	0,43	-0,23	0,31	
Work Intensity: Qualitative or Emotional Demands							
Dealing Clients	-0,17	0,18	0,22	0,24	0,41*	-0,03	base outcome
Emotional Disturbances	0,52***	-0,24	0,41***	1,00***	0,04	1,60***	
Work Extensity: Work Time Arrangement							
Work-Life Unbalance	0,20	-0,81***	0,56***	0,30	0,68***	1,06***	base outcome
Work Free Time	0,32**	-0,29*	0,22	0,21	0,42**	0,04	
Organizational Resources: Organizational Participation							
Influence Decisions	-0,38**	0,50***	0,09	-0,37	0,13	0,10	base outcome
Organizational Resources: Autonomy							
Autonomy Method Work	0,11	0,08	-0,08	-0,39	0,02	-0,18	base outcome
Rewards							
Job Security	-0,11	0,05	-0,12	0,00	-0,23	-0,11	base outcome
Work Recognition	0,07	0,15	-0,36**	-0,95***	-0,27	-0,42	
Social Resources: Social Support							
Colleagues Help Support	0,62*	-0,52	-0,63*	-1,36**	-0,49	-0,98*	base outcome
Manager Help Support	-0,35	0,22	,03	0,70	0,03	-0,33	
Controls							
Female	0,28**	-0,37***	0,15	-0,21	0,15	0,58**	base outcome
Age	0,01	-0,01	0,00	-0,01	0,00	0,00	
High Education	0,19	-0,17	-0,07	-0,33	-0,05	-0,15	
Household Size	-0,05	0,02	0,02	-0,25**	0,00	0,23**	
Make Ends Meet	-0,05	0,11	N/A	N/A	N/A	N/A	
North	0,24	-0,50*	0,03	-0,13	0,27	-0,46	
Center	-0,07	-0,46*	0,13	0,43	0,32	-0,30	
Permanent Job	-0,37**	-0,06	-0,20	0,13	-0,28	-0,25	
Private Sector	-0,09	0,02	-0,30*	-0,67*	-0,40	-0,38	
Tertiary Sector	0,03	-0,00	-0,29	-0,27	-0,18	-0,14***	
_cons	-0,73	N/A	0,05	-0,13	-0,79	-1,42	
Select							
Female	-0,10	0,08	N/A	N/A	N/A	N/A	base outcome
Age	N/A	-0,05***	N/A	N/A	N/A	N/A	
Permanent Job	N/A	N/A	N/A	N/A	N/A	N/A	
Tertiary Sector	N/A	N/A	N/A	N/A	N/A	N/A	
_cons	-0,26***	4,15***	N/A	N/A	N/A	N/A	
# Observations Selected	476	472	463	463			
# Observations Non-Selected	780	12	N/A	N/A			
# Observations	1256	484	N/A	N/A			

Significance level: *** $p < 0.001$; ** $p < 0.05$; *** $p < 0.1$; Heckman model was used for anxiety and depression to correct for selection bias.

Table 4.6 – Average marginal effects for *Model 3 – Social Resources*

Model 3 - Social Resources									
Regression output (marginal effects - dy/dx)	Anxiety	Depression	At Risk of Depression	Normal Status	Burnout	Emotional Burnout	Physical Burnout	Emotional & Physical Burnout	No burnout
Work Intensity: Quantitative Demands									
High Speed	0,15***	0,00	0,01	-0,01	0,12**	0,02	0,04	0,06*	-0,12**
Tight Deadlines	0,08*	0,02	0,03	-0,05	-0,02	0,03	-0,06	0,03	0,01
Work Intensity: Qualitative or Emotional Demands									
Dealing Clients	-0,06	-0,02	-0,03	0,05	0,07	0,01	0,08*	-0,02	-0,07
Emotional Disturbances	0,18***	0,02	0,04	-0,06	0,13***	0,04*	-0,05	0,14***	-0,12***
Work Extensity: Work Time Arrangement									
Work-Life Unbalance	0,07	0,08***	0,13***	-0,21***	0,17***	-0,01	0,10**	0,08***	-0,17***
Work Free Time	0,11**	0,03**	0,05**	-0,08**	0,07	0,01	0,08**	-0,01	-0,07*
Organizational Resources: Organizational Participation									
Influence Decisions	-0,13**	-0,05**	-0,08***	0,13***	0,03	-0,02	0,03	0,01	-0,01
Organizational Resources: Autonomy									
Autonomy Method Work	0,04	-0,01	-0,01	0,02	-0,02	-0,02	0,02	-0,01	0,02
Rewards									
Job Security	-0,04	-0,01	-0,01	0,01	-0,04	0,01	-0,04	-0,00	0,04
Work Recognition	0,02	-0,01	-0,02	0,04	-0,11**	-0,05**	-0,03	-0,02	0,09*
Social Resources: Social Support									
Colleagues Help Support	0,21*	0,05	0,08	-0,13	-0,19**	-0,06*	-0,04	-0,06	0,17*
Manager Help Support	-0,12	-0,02	-0,03	0,06	0,01	0,04	0,00	-0,04	-0,01
Controls									
Female	0,09**	0,04**	0,06***	-0,10***	0,05	-0,02	0,02	0,05**	-0,05
Age	0,00	0,00	0,00	-0,00	0,00	-0,00	0,00	0,00	-0,00
High Education	0,07	0,02	0,03	-0,04	-0,02	-0,02	0,00	-0,01	0,03
Household Size	-0,02	-0,00	-0,00	0,00	0,01	-0,02***	-0,00	0,02***	-0,01
Make Ends Meet	-0,02	-0,01	-0,02	0,03	N/A	N/A	N/A	N/A	N/A
North	0,08	0,05**	0,08*	-0,13*	0,01	-0,01	0,07	-0,05	-0,01
Center	-0,02	0,05*	0,07*	-0,12*	0,04	0,02	0,06	-0,04	-0,04
Permanent Job	-0,13**	0,01	0,01	-0,02	-0,06	0,01	-0,05	-0,02	0,05
Private Sector	-0,03	-0,00	-0,00	0,00	-0,09*	-0,03	-0,06	-0,02	0,10**
Tertiary Sector	0,01	0,00	0,00	0,00	-0,09*	0,00	0,00	-0,10***	0,10*
# Observations	477		477		463			463	

Significance level: *** $p < 0.001$; ** $p < 0.05$; *** $p < 0.1$

Appendix 5

Table 5.1 – Stepwise regression: standard, ordered and multinomial average marginal effects for *Model 1 – Organizational Resources*

Model 1 - Organizational Resources									
Regression output (marginal effects - dy/dx)	Anxiety	Depression	At Risk of Depression	Normal Status	Burnout	Emotional Burnout	Physical Burnout	Emotional & Physical Burnout	No burnout
Work Intensity: Quantitative Demands									
High Speed	0,14***	-	-	-	0,12**	-	-	-	-0,12**
Tight Deadlines	0,11**	0,06***	0,07***	-0,12***	-	-	-	-	-
Work Intensity: Qualitative or Emotional Demands									
Dealing Clients	-	-	-	-	-	-	-	-	-
Emotional Disturbances	0,18***	0,04***	0,05***	-0,10***	0,18***	0,04**	-	0,12***	-0,16***
Work Extensity: Work Time Arrangement									
Work-Life Unbalance	0,12**	0,10***	0,13***	-0,23***	0,19***	-	0,12***	0,06**	-0,19***
Work Free Time	0,10**	-	-	-	-	-	-	-	-
Organizational Resources: Organizational Participation									
Influence Decisions	-0,13**	-	-	-	-	-	-	-	-
Consulted Objectives	-	-0,05**	-0,06**	0,10**	-0,11**	-	-	-0,09***	0,10**
Involved Improve Work	-	-	-	-	-	-	-	-	-
Organizational Resources: Autonomy									
Autonomy Method Work	-	-	-	-	-	-	-	-	-
Autonomy Order Tasks	-	-	-	-	-	-	-	-	-
Autonomy Speed Work	-	-	-	-	-	-	-	-	-
Rewards									
Job Security	-0,11**	-	-	-	-0,14**	-0,05**	-0,09*	-	0,13**
Work Recognition	-	-	-	-	-	-	-	-	-
Controls									
Female	0,11**	0,03**	0,04**	-0,08**	0,07*	-	-	0,04*	-0,07*
Age	-	-	-	-	-	-	-	-	-
High Education	-	-	-	-	-	-	-	-	-
Household Size	-0,03*	-	-	-	-	-	-	-	-
Make Ends Meet	-0,08*	-0,04***	-0,05***	0,10***	N/A	N/A	N/A	N/A	N/A
North	-	0,05*	0,06**	-0,12**	-	-	-	-	-
Center	-	-	-	-	0,08*	-	-	-	-0,08**
Permanent Job	-	-	-	-	-	-	-	-	-
Private Sector	-	-	-	-	-	-	-	-	-
Tertiary Sector	-	-	-	-	-	-	-	-	-
# Observations	437		434		473			493	

Significance level: *** $p < 0.001$; ** $p < 0.05$; *** $p < 0.1$; “-” are the variables that were dropped with stepwise

Table 5.2 – Stepwise regression: standard, ordered and multinomial average marginal effects for *Model 2 – Rewards*

Model 2 - Rewards									
Regression output (marginal effects - dy/dx)	Anxiety	Depression	At Risk of Depression	Normal Status	Burnout	Emotional Burnout	Physical Burnout	Emotional & Physical Burnout	No burnout
Work Intensity: Quantitative Demands									
High Speed	0,20***	-	-	-	0,16***	-	0,10**	-	-0,15***
Tight Deadlines	0,10**	0,04**	0,05**	-0,09**	-	-	-	-	-
Work Intensity: Qualitative or Emotional Demands									
Dealing Clients	-	-	-	-	-	-	-	-	-
Emotional Disturbances	0,16***	-	-	-	0,19***	0,03*	-	0,14***	-0,18***
Work Extensity: Work Time Arrangement									
Work-Life Unbalance	-	0,09***	0,13***	-0,22***	0,18***	-	0,14***	0,06***	-0,17***
Work Free Time	0,08*	0,02*	0,03*	-0,05*	0,10**	-	0,10***	-	-0,10**
Organizational Resources: Organizational Participation									
Influence Decisions	-	-	-	-	-	-	-	-	-
Organizational Resources: Autonomy									
Autonomy Method Work	-	-	-	-	-	-	-	-	-
Rewards									
Job Security	-	-	-	-	-	-	-	-	-
Work Recognition	-	-	-	-	-	-	-	-	-
Paid Appropriately	-0,12***	-0,07***	-0,11***	0,19***	-	-	-	-	-
Career Prospects	-	-	-	-	-0,15***	-	-0,11***	-	0,14***
Controls									
Female	0,19***	0,06***	0,08***	-0,14***	-	-	-	-	-
Age	-	-	-	-	0,00*	0,00*	-	-	-0,00**
High Education	-	-	-	-	-	-	-	-	-
Household Size	-	-	-	-	-	-	-	-	-
Make Ends Meet	-	-	-	-	N/A	N/A	N/A	N/A	N/A
North	-	0,07***	0,11***	-0,18***	-	-	-	-	-
Center	-	0,05**	0,08**	-0,14**	0,07*	-	-	-	-0,08**
Permanent Job	-0,10*	-	-	-	-0,17***	-	-	-	0,14***
Private Sector	-	-	-	-	-	-	-	-	-
Tertiary Sector	-0,10**	-	-	-	-	-	-	-	-
# Observations	488	485			477	482			

Significance level: *** $p < 0.001$; ** $p < 0.05$; *** $p < 0.1$; “-” are the variables that were dropped with stepwise

Table 5.3 – Stepwise regression: standard, ordered and multinomial average marginal effects for *Model 3 – Social Resources*

Model 3 - Social Resources									
Regression output (marginal effects - dy/dx)	Anxiety	Depression	At Risk of Depression	Normal Status	Burnout	Emotional Burnout	Physical Burnout	Emotional & Physical Burnout	No burnout
Work Intensity: Quantitative Demands									
High Speed	0,16***	-	-	-	0,11**	-	-	0,06**	-0,13***
Tight Deadlines	0,10**	0,02*	0,04*	-0,07*	-	-	-	-	-
Work Intensity: Qualitative or Emotional Demands									
Dealing Clients	-	-	-	-	-	-	-	-	-
Emotional Disturbances	0,19***	0,03**	0,05**	-0,08**	0,15***	0,03**	-	0,13***	-0,15***
Work Extensity: Work Time Arrangement									
Work-Life Unbalance	-	0,07***	0,13***	-0,20***	0,18***	-	0,12***	0,07***	-0,18***
Work Free Time	0,12***	0,03**	0,05**	-0,08**	0,08*	-	0,06*	-	-0,07**
Organizational Resources: Organizational Participation									
Influence Decisions	-0,10*	-0,05***	-0,09***	0,14***	-	-	-	-	-
Organizational Resources: Autonomy									
Autonomy Method Work	-	-	-	-	-	-	-	-	-
Rewards									
Job Security	-	-	-	-	-	-	-	-	-
Work Recognition	-	-	-	-	-0,12**	-0,04**	-	-0,06***	0,08*
Social Resources: Social Support									
Colleagues Help Support	-	-	-	-	-0,18*	-0,05**	-	-	-
Manager Help Support	-	-	-	-	-	-	-	-	-
Controls									
Female	0,10**	0,04***	0,06***	-0,10***	-	-	-	-	-
Age	-	-	-	-	-	-	-	-	-
High Education	-	-	-	-	-	-	-	-	-
Household Size	-	-	-	-	-	-	-	-	-
Make Ends Meet	-	-	-	-	N/A	N/A	N/A	N/A	N/A
North	0,08*	0,04*	0,08*	-0,12*	-	-	-	-	-
Center	-	0,04*	0,07*	-0,11*	-	-	-	-	-
Permanent Job	-0,12**	-	-	-	-	-	-	-	-
Private Sector	-	-	-	-	-	-	-	-	-
Tertiary Sector	-	-	-	-	-	-	-	-	-
# Observations	476	472			463	736			

Significance level: *** $p < 0.001$; ** $p < 0.05$; * $p < 0.1$; “-” are the variables that were dropped with stepwise

Appendix 6

Table 6.1 – Results: hypothesis 1

H1: Job Demands	Anxiety	Burnout	Depression
H1.1: Working at High Speed	+	+	
H1.2: Working to Tight Deadlines		+	+
H1.3: Dealing with Clients			
H1.4: Emotional Disturbances	+	+	+
H1.5: Work-Life Unbalance	+	+	+
H1.6: Work During Free Time	+	+	+

Table 6.2 – Results: hypothesis 2

H2: Job Resources	Anxiety	Burnout	Depression
H2.1: Influence Decisions	-		
H2.2: Consulted Objectives		-	-
H2.3: Involved in Improve Work			
H2.4: Autonomy Method Work			
H2.5: Autonomy Order Tasks			
H2.6: Autonomy Speed Work			
H2.7: Job Security			
H2.8: Work Recognition			
H2.9: Paid Appropriately	-		-
H2.10: Career Prospects		-	
H2.11: Colleagues Help Support		-	
H2.12: Manager Help Support			

Appendix 7

Table 7.1 – Results: control variables

<i>Controls</i>	Anxiety	Burnout	Depression
Female	+	+	+
Age			
High Education			
Household Size	-		
Make Ends Meet	-	N/A	-
North	+		+
Centre		+	+
Permanent Job	-	-	
Private Sector			
Tertiary Sector	-		

Appendix 8

Table 8.1 –Wald test results: buffer hypothesis

Wald Test: Buffer Hypothesis	p-value
Model 1 – Organizational Resources: Anxiety	
$H_0: \beta_{\text{highspeed}} + \beta_{\text{tightdeadlines}} + \beta_{\text{emotionaldisturbances}} + \beta_{\text{worklifeunbalance}} + \beta_{\text{workfreetime}} \leq - \beta_{\text{influencedecisions}}$	0,00
$H_0: \beta_{\text{highspeed}} \leq - \beta_{\text{influencedecisions}}$	0,46
$H_0: \beta_{\text{tightdeadlines}} \leq - \beta_{\text{influencedecisions}}$	0,63
$H_0: \beta_{\text{emotionaldisturbances}} \leq - \beta_{\text{influencedecisions}}$	0,29
$H_0: \beta_{\text{worklifeunbalance}} \leq - \beta_{\text{influencedecisions}}$	0,57
$H_0: \beta_{\text{workfreetime}} \leq - \beta_{\text{influencedecisions}}$	0,68
Model 1 – Organizational Resources: Burnout	
$H_0: \beta_{\text{highspeed}} + \beta_{\text{emotionaldisturbances}} + \beta_{\text{worklifeunbalance}} \leq - \beta_{\text{consultedobjectives}}$	0,00
$H_0: \beta_{\text{highspeed}} \leq - \beta_{\text{consultedobjectives}}$	0,41
$H_0: \beta_{\text{emotionaldisturbances}} \leq - \beta_{\text{consultedobjectives}}$	0,14
$H_0: \beta_{\text{worklifeunbalance}} \leq - \beta_{\text{consultedobjectives}}$	0,15
Model 1 – Organizational Resources: Depression	
$H_0: \beta_{\text{tightdeadlines}} + \beta_{\text{emotionaldisturbances}} + \beta_{\text{worklifeunbalance}} \leq - \beta_{\text{consultedobjectives}}$	0,00
$H_0: \beta_{\text{tightdeadlines}} \leq - \beta_{\text{consultedobjectives}}$	0,38
$H_0: \beta_{\text{emotionaldisturbances}} \leq - \beta_{\text{consultedobjectives}}$	0,54
$H_0: \beta_{\text{worklifeunbalance}} \leq - \beta_{\text{consultedobjectives}}$	0,01
Model 2 – Rewards: Anxiety	
$H_0: \beta_{\text{highspeed}} + \beta_{\text{tightdeadlines}} + \beta_{\text{emotionaldisturbances}} + \beta_{\text{workfreetime}} \leq - \beta_{\text{paidappropriately}}$	0,00
$H_0: \beta_{\text{highspeed}} \leq - \beta_{\text{paidappropriately}}$	0,13
$H_0: \beta_{\text{tightdeadlines}} \leq - \beta_{\text{paidappropriately}}$	0,63
$H_0: \beta_{\text{emotionaldisturbances}} \leq - \beta_{\text{paidappropriately}}$	0,28
$H_0: \beta_{\text{workfreetime}} \leq - \beta_{\text{paidappropriately}}$	0,75
Model 2 – Rewards: Burnout	
$H_0: \beta_{\text{highspeed}} + \beta_{\text{emotionaldisturbances}} + \beta_{\text{worklifeunbalance}} + \beta_{\text{workfreetime}} \leq - \beta_{\text{careerprospects}}$	0,00
$H_0: \beta_{\text{highspeed}} \leq - \beta_{\text{careerprospects}}$	0,42
$H_0: \beta_{\text{emotionaldisturbances}} \leq - \beta_{\text{careerprospects}}$	0,25
$H_0: \beta_{\text{worklifeunbalance}} \leq - \beta_{\text{careerprospects}}$	0,30
$H_0: \beta_{\text{workfreetime}} \leq - \beta_{\text{careerprospects}}$	0,82
Model 2 – Rewards: Depression	
$H_0: \beta_{\text{tightdeadlines}} + \beta_{\text{worklifeunbalance}} + \beta_{\text{workfreetime}} \leq - \beta_{\text{paidappropriately}}$	0,01
$H_0: \beta_{\text{tightdeadlines}} \leq - \beta_{\text{paidappropriately}}$	0,96
$H_0: \beta_{\text{worklifeunbalance}} \leq - \beta_{\text{paidappropriately}}$	0,28
$H_0: \beta_{\text{workfreetime}} \leq - \beta_{\text{paidappropriately}}$	0,99

Model 3 – Social Resources: Burnout	
$H_0: \beta_{\text{highspeed}} + \beta_{\text{emotionaldisturbances}} + \beta_{\text{worklifeunbalance}} + \beta_{\text{workfreetime}} \leq - \beta_{\text{colleagueshelpsupport}}$	0,00
$H_0: \beta_{\text{highspeed}} \leq - \beta_{\text{colleagueshelpsupport}}$	0,75
$H_0: \beta_{\text{emotionaldisturbances}} \leq - \beta_{\text{colleagueshelpsupport}}$	0,59
$H_0: \beta_{\text{worklifeunbalance}} \leq - \beta_{\text{colleagueshelpsupport}}$	0,49
$H_0: \beta_{\text{workfreetime}} \leq - \beta_{\text{colleagueshelpsupport}}$	0,83

Numbers in bold highlight the cases in which the null is not rejected ($p\text{-value} > 0.1$), that is, there is evidence of a buffer effect; Blue highlights the cases in which the Wald Test is in line with the coefficients' analysis.

Appendix 9

Table 9.1 – Robustness checks: workplace size: standard, ordered and multinomial average marginal effects for *Model 1 – Organizational Resources*

Model 1 - Organizational Resources									
Regression output (marginal effects - dy/dx)	Anxiety	Depression	At Risk of Depression	Normal Status	Burnout	Emotional Burnout	Physical Burnout	Emotional & Physical Burnout	No burnout
Work Intensity: Quantitative Demands									
High Speed	0,15***	-	-	-	0,12**	-	0,06*	0,05*	-0,13***
Tight Deadlines	0,12**	0,05***	0,06***	-0,11***	-	-	-	-	-
Work Intensity: Qualitative or Emotional Demands									
Dealing Clients	-	-	-	-	-	-	-	-	-
Emotional Disturbances	0,18***	0,04***	0,05***	-0,10***	0,19***	0,04***	-	0,14***	-0,16***
Work Extensity: Work Time Arrangement									
Work-Life Unbalance	0,11*	0,10***	0,13***	-0,23***	0,21***	-	0,13***	0,09***	-0,22***
Work Free Time	0,10**	-	-	-	-	-	-	-	-
Organizational Resources: Organizational Participation									
Influence Decisions	-0,14**	-	-	-	-	-	-	-	-
Consulted Objectives	-	-0,06***	-0,07***	0,13***	-	-	-	-0,09***	0,10**
Involved Improve Work	-	-	-	-	-	-	-	-	-
Organizational Resources: Autonomy									
Autonomy Method Work	-	-	-	-	-	-	-	-	-
Autonomy Order Tasks	-	-	-	-	-	-	-	-	-
Autonomy Speed Work	-	-	-	-	-	-	-	-	-
Rewards									
Job Security	-0,13**	-	-	-	-0,15***	-0,03**	-0,07*	-	0,11***
Work Recognition	-	-	-	-	-	-	-	-	-
Controls									
Female	0,10**	0,03*	0,04*	-0,07*	0,08*	-	-	-	-
Age	-	-	-	-	-	-	-	-	-
High Education	-	-	-	-	-	-	-	-	-
Household Size	-0,04**	-	-	-	-	-	-	-	-
Make Ends Meet	-0,09*	-0,05***	-0,06***	0,10***	N/A	N/A	N/A	N/A	N/A
North	-	-0,05*	-0,06*	-0,11*	-	-	-	-	-
Center	-	0,04*	0,05*	-0,10*	-	-	-	-	-
Permanent Job	-	-	-	-	-	-	-	-	-
Private Sector	-	-	-	-	-	-	-	-	-
Tertiary Sector	-	-	-	-	-	-	-	-	-
Micro enterprises - 1 to 9	-	-	-	-	-	-	-	-	-
Small enterprises - 10 to 49	-	-	-	-	-	-	-	-	-
Medium-sized enterprises - 50 to 249	0,13**	-	-	-	-	-	-	-	-
Large enterprises - 250+	-	-	-	-	-	-	-	-	-
# Observations	422	419			457	750			

Significance level: *** $p < 0.001$; ** $p < 0.05$; * $p < 0.1$; “-” are the variables that were dropped with stepwise

Table 9.2 – Robustness checks: workplace size: standard, ordered and multinomial average marginal effects for *Model 2 – Rewards*

Model 2 - Rewards									
Regression output (marginal effects - dy/dx)	Anxiety	Depression	At Risk of Depression	Normal Status	Burnout	Emotional Burnout	Physical Burnout	Emotional & Physical Burnout	No burnout
Work Intensity: Quantitative Demands									
High Speed	0,19***	-	-	-	0,16***	-	0,10**	-	-0,16***
Tight Deadlines	0,12**	0,04**	0,05**	-0,09**	-	-	-	-	-
Work Intensity: Qualitative or Emotional Demands									
Dealing Clients	-	-	-	-	-	-	-	-	-
Emotional Disturbances	0,17***	-	-	-	0,18***	-	-	0,15***	-0,17***
Work Extensity: Work Time Arrangement									
Work-Life Unbalance	-	0,09***	0,13***	-0,22***	0,18***	-	0,11***	0,07***	-0,16***
Work Free Time	0,07*	0,03**	0,04**	-0,07**	0,10***	-	0,10***	-	-0,11**
Organizational Resources: Organizational Participation									
Influence Decisions	-	-	-	-	0,10*	-	-	-	-
Organizational Resources: Autonomy									
Autonomy Method Work	-	-0,03*	-0,04*	0,07*	-	-	-	-	-
Rewards									
Job Security	-	-	-	-	-	-	-	-	-
Work Recognition	-	-	-	-	-	-	-	-	-
Paid Appropriately	-0,13***	-0,07***	-0,11***	0,18***	-	-	-	-	-
Career Prospects	-	-	-	-	-0,16***	-	-0,06***	-0,08***	0,17***
Controls									
Female	0,18***	0,05***	0,07***	-0,12***	-	-	-	-	-
Age	-	-	-	-	-	-	-	-	-
High Education	-	-	-	-	-	-	-	-	-
Household Size	-0,03*	-	-	-	-	-	-	-	-
Make Ends Meet	-	-	-	-	N/A	N/A	N/A	N/A	N/A
North	-	0,08***	0,12***	-0,21***	-	-	-	-	-
Center	-	0,06**	0,09**	-0,15**	-	-	-	-	-
Permanent Job	-	-0,03*	-0,04*	0,07*	-0,15***	-0,04*	-0,10**	-	0,13***
Private Sector	-	-	-	-	-	-	-	-	-
Tertiary Sector	-0,12**	-	-	-	-	-	-	-	-
Micro enterprises - 1 to 9	-	-	-	-	-	-	-	-	-
Small enterprises - 10 to 49	-	-	-	-	-	-	-	-	-
Medium-sized enterprises - 50 to 249	0,11**	-	-	-	-	-	-	-	-
Large enterprises - 250+	-	-	-	-	-	-	-	-	-
# Observations	467	464			461	490			

Significance level: *** $p < 0.001$; ** $p < 0.05$; *** $p < 0.1$; “-” are the variables that were dropped with stepwise

Table 9.3 – Robustness checks: workplace size: standard, ordered and multinomial average marginal effects for *Model 3 – Social Resources*

Model 3 - Social Resources									
Regression output (marginal effects - dy/dx)	Anxiety	Depression	At Risk of Depression	Normal Status	Burnout	Emotional Burnout	Physical Burnout	Emotional & Physical Burnout	No burnout
Work Intensity: Quantitative Demands									
High Speed	0,14***	-	-	-	0,12**	-	0,07*	0,07**	-0,15***
Tight Deadlines	0,10**	-	-	-	-	-	-	-	-
Work Intensity: Qualitative or Emotional Demands									
Dealing Clients	-	-	-	-	0,08*	-	-	-	-0,06*
Emotional Disturbances	0,20***	0,04***	0,07***	-0,11***	0,14***	0,03**	-	0,14***	-0,16***
Work Extensity: Work Time Arrangement									
Work-Life Unbalance	-	0,07***	0,13***	-0,20***	0,19***	-	0,14***	0,06***	-0,19***
Work Free Time	0,11***	0,02**	0,05**	-0,07**	-	-	-	-	-
Organizational Resources: Organizational Participation									
Influence Decisions	-	-0,04**	-0,09***	0,13***	-	-	-	-	-
Organizational Resources: Autonomy									
Autonomy Method Work	-	-	-	-	-	-	-	-	-
Rewards									
Job Security	-	-	-	-	-	-	-	-	-
Work Recognition	-	-	-	-	-0,12**	-0,03**	-	-0,05**	-
Social Resources: Social Support									
Colleagues Help Support	-	-	-	-	-0,20**	-0,05*	-	-	-
Manager Help Support	-	-	-	-	-	-	-	-	-
Controls									
Female	0,10**	-	-	-	-	-	-	-	-
Age	-	-	-	-	-	-	-	-	-
High Education	-	-	-	-	-	-	-	-	-
Household Size	-	0,03**	0,05**	-0,07**	-	-	-	-	-
Make Ends Meet	-	-	-	-	N/A	N/A	N/A	N/A	N/A
North	0,08*	-	-	-	-	-	-	-	-
Center	-	-	-	-	-	-	-	-	-
Permanent Job	-0,13**	-	-	-	-	-	-	-	-
Private Sector	-	-	-	-	-0,08*	-	-	-	-
Tertiary Sector	-	-	-	-	-0,10*	-	-	-0,06**	0,08**
Micro enterprises - 1 to 9	-	-	-	-	-	-	-	-	-
Small enterprises - 10 to 49	-	-	-	-	-	-	-	-	-
Medium-sized enterprises - 50 to 249	0,13**	-	-	-	0,10**	-	-	-	-
Large enterprises - 250+	-	-	-	-	-	0,06*	-	-	-0,10**
# Observations	467	451			449	713			

Significance level: *** $p < 0.001$; ** $p < 0.05$; * $p < 0.1$; “-” are the variables that were dropped with stepwise

Appendix 10

Table 10.1 – Robustness checks: teleworking: standard, ordered and multinomial

average marginal effects for *Model 1 – Organizational Resources*

Model 1 - Organizational Resources									
Regression output (marginal effects - dy/dx)	Anxiety	Depression	At Risk of Depression	Normal Status	Burnout	Emotional Burnout	Physical Burnout	Emotional & Physical Burnout	No burnout
Work Intensity: Quantitative Demands									
High Speed	0,14***	-	-	-	0,14***	-	0,08*	-	-0,14***
Tight Deadlines	0,11**	0,05**	0,06**	-0,10***	-	-	-	-	-
Work Intensity: Qualitative or Emotional Demands									
Dealing Clients	-	-	-	-	-	-	-	-	-
Emotional Disturbances	0,18***	0,04***	0,05***	-0,10***	0,17***	0,04**	-	0,12***	-0,15***
Work Extensy: Work Time Arrangement									
Work-Life Unbalance	0,12**	0,10***	0,12***	-0,22***	0,19***	-	0,13***	0,06**	-0,20***
Work Free Time	0,10**	-	-	-	-	-	-	-	-
Organizational Resources: Organizational Participation									
Influence Decisions	-0,13**	-0,03*	-0,04*	0,07*	-	-	-	-	-
Consulted Objectives	-	-0,05**	-0,06***	0,10***	-0,10**	-	-	-0,09***	0,10**
Involved Improve Work	-	-	-	-	-	-	-	-	-
Organizational Resources: Autonomy									
Autonomy Method Work	-	-	-	-	-	-	-	-	-
Autonomy Order Tasks	-	-	-	-	-	-	-	-	-
Autonomy Speed Work	-	-	-0,03*	0,06*	-	-	-	-	-
Rewards									
Job Security	-0,11**	-	-	-	-0,13**	-0,05**	-	-	0,13**
Work Recognition	-	-	-	-	-	-	-	-	-
Controls									
Female	0,11**	0,03**	0,04**	-0,08**	0,08**	-	-	0,04*	-0,09**
Age	-	-	-	-	-	-	-	-	-
High Education	-	-	-	-	-	-	-	-	-
Household Size	-0,03*	-	-	-	-	-	-	-	-
Make Ends Meet	-0,08*	-0,05***	-0,06***	0,11***	N/A	N/A	N/A	N/A	N/A
North	-	0,05*	0,06*	-0,11*	-	-	-	-	-
Center	-	0,04*	0,05*	-0,10*	0,09**	-	0,07*	-	-0,09**
Permanent Job	-	-	-	-	-	-	-	-	-
Private Sector	-	-	-	-	-	-	-	-	-
Tertiary Sector	-	-	-	-	-	-	-	-	-
Telework	-	0,03**	0,04**	-0,08**	-0,14***	-	-0,11***	-	0,13***
# Observations	437		434		473		493		

Significance level: *** $p < 0.001$; ** $p < 0.05$; *** $p < 0.1$; “-” are the variables that were dropped with stepwise

Table 10.2 – Robustness checks: teleworking: standard, ordered and multinomial
average marginal effects for *Model 2 – Rewards*

Model 2 - Rewards									
Regression output (marginal effects - dy/dx)	Anxiety	Depression	At Risk of Depression	Normal Status	Burnout	Emotional Burnout	Physical Burnout	Emotional & Physical Burnout	No burnout
Work Intensity: Quantitative Demands									
High Speed	0,24***	0,04**	0,05*	-0,09**	0,17***	-	0,10*	-	-0,16***
Tight Deadlines	-	-	-	-	-	-	-	-	-
Work Intensity: Qualitative or Emotional Demands									
Dealing Clients	-	-	-	-	-	-	-	-	-
Emotional Disturbances	0,18***	-	-	-	0,18***	-	-	0,15***	-0,17***
Work Extensity: Work Time Arrangement									
Work-Life Unbalance	-	0,09***	0,13***	-0,22***	0,18***	-	0,12***	0,08***	-0,17***
Work Free Time	-	0,02*	0,03*	-0,06*	0,11***	-	0,10***	-	-0,11***
Organizational Resources: Organizational Participation									
Influence Decisions	-	-	-	-	-	-	-	-	-
Organizational Resources: Autonomy									
Autonomy Method Work	-	-	-	-	-	-	-	-	-
Rewards									
Job Security	-	-	-	-	-	-	-	-	-
Work Recognition	-	-	-	-	-	-	-	-	-
Paid Appropriately	-0,13***	-0,08***	-0,11***	0,19***	-	-	-	-	-
Career Prospects	-	-	-	-	-0,14***	-	-0,07*	-0,06**	0,14***
Controls									
Female	0,17***	0,06***	0,09***	-0,15***	-	-	-	-	-
Age	-	-	-	-	0,00**	0,00*	-	0,00*	-0,00**
High Education	-	-	-	-	-	-	-	-	-
Household Size	-	-	-	-	-	-	-	-	-
Make Ends Meet	-	-	-	-	N/A	N/A	N/A	N/A	N/A
North	-	0,08***	0,11***	-0,19***	-	-	-	-	-
Center	-	0,06**	0,09***	-0,14***	0,08**	-	-	-	-0,08**
Permanent Job	-0,11*	-0,03*	-0,04*	0,07*	-0,17***	-0,05**	-0,09**	-	0,16***
Private Sector	-	-	-	-	-	-	-	-	-
Tertiary Sector	-0,13***	-0,03*	-0,05**	0,08**	-	-	-	-	-
Telework	0,13***	0,02*	0,04*	-0,06*	-0,08**	-	-0,07*	-	0,09**
# Observations	488		485		477		494		

Significance level: *** $p < 0.001$; ** $p < 0.05$; *** $p < 0.1$; “-” are the variables that were dropped with stepwise

Table 10.3 – Robustness checks: teleworking: standard, ordered and multinomial
average marginal effects for *Model 3 – Social Resources*

Model 3 - Social Resources									
Regression output (marginal effects - dy/dx)	Anxiety	Depression	At Risk of Depression	Normal Status	Burnout	Emotional Burnout	Physical Burnout	Emotional & Physical Burnout	No burnout
Work Intensity: Quantitative Demands									
High Speed	0,18***	-	-	-	0,11**	-	-	0,06**	-0,13***
Tight Deadlines	-	-	-	-	-	-	-	-	-
Work Intensity: Qualitative or Emotional Demands									
Dealing Clients	-	-	-	-	-	-	-	-	-
Emotional Disturbances	0,20***	0,03***	0,06***	-0,09***	0,15***	0,03**	-	0,13***	-0,15***
Work Extensity: Work Time Arrangement									
Work-Life Unbalance	-	0,07***	0,13***	-0,20***	0,18***	-	0,12***	0,07***	-0,18***
Work Free Time	0,10**	0,03**	0,05**	-0,07**	0,08*	-	0,06*	-	-0,07**
Organizational Resources: Organizational Participation									
Influence Decisions	-0,10*	-0,05***	-0,09***	0,13***	-	-	-	-	-
Organizational Resources: Autonomy									
Autonomy Method Work	-	-	-	-	-	-	-	-	-
Rewards									
Job Security	-	-	-	-	-	-	-	-	-
Work Recognition	-	-	-	-	-0,12**	-0,04**	-	-0,06***	0,08*
Social Resources: Social Support									
Colleagues Help Support	-	-	-	-	-0,18*	-0,05**	-	-	-
Manager Help Support	-	-	-	-	-	-	-	-	-
Controls									
Female	0,08*	-	-	-	-	-	-	-	-
Age	-	-	-	-	-	-	-	-	-
High Education	-	-	-	-	-	-	-	-	-
Household Size	-	-	-	-	-	-	-	-	-
Make Ends Meet	-	-	-	-	N/A	N/A	N/A	N/A	N/A
North	0,08*	-	-	-	-	-	-	-	-
Center	-	-	-	-	-	-	-	-	-
Permanent Job	-0,14***	-	-	-	-	-	-	-	-
Private Sector	-	-	-	-	-	-	-	-	-
Tertiary Sector	-	-	-	-	-	-	-	-	-
Telework	0,12***	0,03**	0,05**	-0,08**	-	-	-	-	-
# Observations	476	472			463	736			

Significance level: *** $p < 0.001$; ** $p < 0.05$; *** $p < 0.1$; “-” are the variables that were dropped with stepwise

Appendix 11

Table 11.1 – Robustness checks: NACE: standard, ordered and multinomial average marginal effects for *Model 1 – Organizational Resources*

Model 1 - Organizational Resources									
Regression output (marginal effects - dy/dx)	Anxiety	Depression	At Risk of Depression	Normal Status	Burnout	Emotional Burnout	Physical Burnout	Emotional & Physical Burnout	No burnout
Work Intensity: Quantitative Demands									
High Speed	0,14***	-	-	-	0,13**	-	-	0,06*	-0,13***
Tight Deadlines	0,10*	0,06***	0,07***	-0,13***	-	-	-	-	-
Work Intensity: Qualitative or Emotional Demands									
Dealing Clients	-	-	-	-	-	-	-	-	-
Emotional Disturbances	0,16***	0,05***	0,06***	-0,10***	0,16***	0,03*	-	0,12***	-0,14***
Work Extensy: Work Time Arrangement									
Work-Life Unbalance	0,13**	0,10***	0,13***	-0,23***	0,19***	-	0,13***	0,06**	-0,20***
Work Free Time	0,11**	-	-	-	-	-	-	-	-
Organizational Resources: Organizational Participation									
Influence Decisions	-0,11**	-	-	-	-	-	-	-	-
Consulted Objectives	-	-0,05***	-0,06***	0,12***	-0,12**	-	-	-0,09***	0,11**
Involved Improve Work	-0,11**	-	-	-	-	-	-	-	-
Organizational Resources: Autonomy									
Autonomy Method Work	0,08*	-	-	0,06*	-	-	-	-	-
Autonomy Order Tasks	-	-	-	-	-	-	-	-	-
Autonomy Speed Work	-	-	-	-	-	-	-	-	-
Rewards									
Job Security	-	-	-	-	-0,15***	-0,05**	-0,09*	-	0,14**
Work Recognition	-	-	-	-	-	-	-	-	-
Controls									
Female	0,11**	0,03**	0,04**	-0,08**	-	-	-	-	-
Age	-	-	-	-	-	-	-	-	-
High Education	-	-	-	-	-	-	-	-	-
Household Size	-	-	-	-	-	-	-	-	-
Make Ends Meet	-0,11**	-0,04***	-0,05***	0,10***	N/A	N/A	N/A	N/A	N/A
North	-	0,05*	0,06*	-0,11*	-	-	-	-	-
Center	-	0,05*	0,06**	-0,11**	0,08*	-	-	-	-0,08**
Permanent Job	-	-	-	-	-	-	-	-	-
Private Sector	-	-	-	-	-	-	-	-	-
Tertiary Sector	-	-	-	-	-	-	-	-	-
Agriculture	0,48**	-	-	-	-	-	-	-	-
Commerce and Hospitality	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-
Education	-	-	-	-	-	-	-	-	-
Financial Services	0,26**	-	-	-	-	-	-	-	-
Health	-	-	-	-	0,13**	-	-	-	-0,13**
Industry	-	-	-	-	-	-	-	-	-
Other Services	-	-	-	-	-	-	-	-	-
Public Administration	-	-	-	-	-	-	-	-	-
Transportation and Storage	-	-	-	-	-	-	-	-	-
# Observations	437	434			473	493			

Significance level: *** $p < 0.001$; ** $p < 0.05$; *** $p < 0.1$; “-” are the variables that were dropped with stepwise

Table 11.2 – Robustness checks: NACE: standard, ordered and multinomial average
marginal effects for *Model 2 – Rewards*

Model 2 - Rewards									
Regression output (marginal effects - dy/dx)	Anxiety	Depression	At Risk of Depression	Normal Status	Burnout	Emotional Burnout	Physical Burnout	Emotional & Physical Burnout	No burnout
Work Intensity: Quantitative Demands									
High Speed	0,20***	0,04**	0,06**	-0,10**	0,16***	-	0,09*	-	-0,15***
Tight Deadlines	0,11**	-	-	-	-	-	-	-	-
Work Intensity: Qualitative or Emotional Demands									
Dealing Clients	-	-	-	-	-	-	-	-	-
Emotional Disturbances	0,15***	-	-	-	0,16***	-	-	0,14***	-0,15***
Work Extensivity: Work Time Arrangement									
Work-Life Unbalance	-	0,09***	0,14***	-0,23***	0,19***	-	0,12***	0,08***	-0,18***
Work Free Time	0,07*	0,03*	0,04*	-0,07**	0,10***	-	0,09**	-	-0,10**
Organizational Resources: Organizational Participation									
Influence Decisions	-	-	-	-	-	-	-	-	-
Organizational Resources: Autonomy									
Autonomy Method Work	-	-0,02*	-0,04*	0,06*	-	-	-	-	-
Rewards									
Job Security	-	-	-	-	-	-	-	-	-
Work Recognition	-	-	-	-	-	-	-	-	-
Paid Appropriately	-0,11***	-0,07***	-0,11***	0,18***	-	-	-	-	-
Career Prospects	-	-	-	-	-0,14***	-	-0,07**	-0,06**	0,14***
Controls									
Female	0,19***	0,07***	0,10***	-0,17***	-	-	-	-	-
Age	-	-	-	-	0,00*	-	-	0,00*	-0,00**
High Education	-	-	-	-	-	-	-	-	-
Household Size	-	-	-	-	-	-	-	-	-
Make Ends Meet	-	-	-	-	N/A	N/A	N/A	N/A	N/A
North	-	0,08***	0,12***	-0,20***	-	-	-	-	-
Center	-	0,06**	0,09**	-0,15**	0,07*	-	-	-	-0,06*
Permanent Job	-	-0,03*	-0,04*	0,07*	-0,18***	-0,05**	-0,10**	-	0,17***
Private Sector	-	-	-	-	-	-	-	-	-
Tertiary Sector	-	-	-	-	-	-	-	-	-
Agriculture	-	-	-	-	-	-	-	-	-
Commerce and Hospitality	-	-0,03*	-0,05**	0,08**	-	-	-	-	-
Construction	0,22**	-	-	-	-	-	-	-	-
Education	-	-	-	-	-	-	-	-	-
Financial Services	-	-	-	-	-	-	-	-	-
Health	-	-0,06***	-0,09***	0,16***	0,14**	0,05*	-	0,05*	-0,13**
Industry	-	-	-	-	-	-	-	-	-
Other Services	-	-	-	-	-	-	-	-	-
Public Administration	-	-	-	-	-	-	-	-	-
Transportation and Storage	-	-	-	-	-	-	-	-	-
# Observations	488	485			477	494			

Significance level: *** $p < 0.001$; ** $p < 0.05$; * $p < 0.1$; “-” are the variables that were dropped with stepwise

Table 11.3 – Robustness checks: NACE: standard, ordered and multinomial average
marginal effects for *Model 3 – Social Resources*

Model 3 - Social Resources									
Regression output (marginal effects - dy/dx)	Anxiety	Depression	At Risk of Depression	Normal Status	Burnout	Emotional Burnout	Physical Burnout	Emotional & Physical Burnout	No burnout
Work Intensity: Quantitative Demands									
High Speed	0,15***	-	-	-	0,11**	-	0,06*	0,06**	-0,14***
Tight Deadlines	0,09*	-	-	-	-	-	-	-	-
Work Intensity: Qualitative or Emotional Demands									
Dealing Clients	-	-	-	-	-	-	-	-	-
Emotional Disturbances	0,19***	0,04***	0,06***	-0,10***	0,15***	0,03**	-	0,13***	-0,15***
Work Extensy: Work Time Arrangement									
Work-Life Unbalance	-	0,08***	0,14***	-0,22***	0,19***	-	0,12***	0,07***	-0,19***
Work Free Time	0,13***	0,03***	0,06***	-0,09***	0,07*	-	0,05*	-	-0,07**
Organizational Resources: Organizational Participation									
Influence Decisions	-0,11*	-0,05***	-0,08***	0,13***	-	-	-	-	-
Organizational Resources: Autonomy									
Autonomy Method Work	-	-	-	-	-	-	-	-	-
Rewards									
Job Security	-	-	-	-	-	-	-	-	-
Work Recognition	-	-	-	-	-0,12***	-0,04**	-	-0,06***	0,08**
Social Resources: Social Support									
Colleagues Help Support	-	-	-	-	-0,18*	-0,05**	-	-	-
Manager Help Support	-	-	-	-	-	-	-	-	-
Controls									
Female	0,09**	0,05***	0,09***	-0,14***	-	-	-	-	-
Age	-	-	-	-	-	-	-	-	-
High Education	-	-	-	-	-	-	-	-	-
Household Size	-	-	-	-	-	-	-	-	-
Make Ends Meet	-	-	-	-	N/A	N/A	N/A	N/A	N/A
North	0,08*	0,05*	0,08*	-0,12*	-	-	-	-	-
Center	-	0,04*	0,07*	-0,11*	-	-	-	-	-
Permanent Job	-0,13**	-	-	-	-	-	-	-	-
Private Sector	-	-	-	-	-	-	-	-	-
Tertiary Sector	-	-	-	-	-	-	-	-	-
Agriculture	-	-0,40***	-0,70***	1,09***	-	-	-	-	-
Commerce and Hospitality	-	-0,05***	-0,09***	0,13***	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-
Education	-	-0,04*	-0,07*	0,11*	0,13*	-	-	-	-
Financial Services	0,26***	-	-	-	-	-	-	-	-
Health	-	-0,05**	-0,09***	0,14***	-	-	-	-	-
Industry	-	-	-	-	-	-	-	-	-
Other Services	-	-	-	-	-	-	-	-	-
Public Administration	-	-	-	-	-	-	-	-	-
Transportation and Storage	-	-	-	-	-	-	-	-	-
# Observations	476	472			463	736			

Significance level: *** $p < 0.001$; ** $p < 0.05$; *** $p < 0.1$; “-” are the variables that were dropped with stepwise

Appendix 12

Table 12.1 – Robustness checks: education: standard, ordered and multinomial average marginal effects for *Model 1 – Organizational Resources*

Model 1 - Organizational Resources					
Regression output (marginal effects - dy/dx)	Anxiety	Depression	At Risk of Depression	Normal Status	Burnout
<i>Work Intensity: Quantitative Demands</i>					
High Speed	0,14***	-	-	-	0,14***
Tight Deadlines	0,10**	0,05***	0,06***	-0,12***	-
<i>Work Intensity: Qualitative or Emotional Demands</i>					
Dealing Clients	-	-	-	-	-
Emotional Disturbances	0,17***	0,04**	0,05**	-0,09**	0,19***
<i>Work Extensy: Work Time Arrangement</i>					
Work-Life Unbalance	0,12**	0,10***	0,13***	-0,23***	0,19***
Work Free Time	0,10**	-	-	-	-
<i>Organizational Resources: Organizational Participation</i>					
Influence Decisions	-0,15***	-0,04*	-0,05*	0,08*	-
Consulted Objectives	-	-0,05**	-0,06***	0,11***	-0,10**
Involved Improve Work	-	-	-	-	-
<i>Organizational Resources: Autonomy</i>					
Autonomy Method Work	-	-	-	-	-
Autonomy Order Tasks	-	-	-	-	-
Autonomy Speed Work	-	-	-	-	-
<i>Rewards</i>					
Job Security	-0,11*	-	-	-	-0,15**
Work Recognition	-	-	-	-	-
<i>Controls</i>					
Female	0,10**	0,03*	0,04*	-0,07*	0,08*
Age	-	-	-	-	-
High Education	-	-	-	-	-0,17**
Middle Education	-0,08*	-0,03**	-0,04**	0,08**	-0,16*
Low Education	-	-	-	-	-
Household Size	-0,03*	-	-	-	-
Make Ends Meet	-0,09*	-0,05***	-0,06***	0,10***	N/A
North	-	0,05**	0,07**	-0,12**	-
Center	-	0,05*	0,06**	-0,11**	0,08**
Permanent Job	-	-	-	-	-
Private Sector	-	-	-	-	-
Tertiary Sector	-	-	-	-	-
# Observations	437	434		473	

Significance level: *** $p < 0.001$; ** $p < 0.05$; *** $p < 0.1$; “-” are the variables that were dropped with stepwise

Table 12.2 – Robustness checks: education: standard, ordered and multinomial average marginal effects for *Model 2 – Rewards*

Model 2 - Rewards									
Regression output (marginal effects - dy/dx)	Anxiety	Depression	At Risk of Depression	Normal Status	Burnout	Emotional Burnout	Physical Burnout	Emotional & Physical Burnout	No burnout
Work Intensity: Quantitative Demands									
High Speed	0,20***	-	-	-	0,16***	-	0,10**	-	-0,15***
Tight Deadlines	0,10**	0,04**	0,05**	-0,09**	-	-	-	-	-
Work Intensity: Qualitative or Emotional Demands									
Dealing Clients	-	-	-	-	-	-	-	-	-
Emotional Disturbances	0,16***	-	-	-	0,19***	0,03*	-	0,14***	-0,18***
Work Extensy: Work Time Arrangement									
Work-Life Unbalance	-	0,09***	0,13***	-0,22***	0,18***	-	0,14***	0,06***	-0,17***
Work Free Time	0,08*	0,02*	0,03*	-0,05*	0,10**	-	0,10***	-	-0,10**
Organizational Resources: Organizational Participation									
Influence Decisions	-	-	-	-	-	-	-	-	-
Organizational Resources: Autonomy									
Autonomy Method Work	-	-	-	-	-	-	-	-	-
Rewards									
Job Security	-	-	-	-	-	-	-	-	-
Work Recognition	-	-	-	-	-	-	-	-	-
Paid Appropriately	-0,12***	-0,07***	-0,11***	0,19***	-	-	-	-	-
Career Prospects	-	-	-	-	-0,15***	-	-0,11***	-	0,14***
Controls									
Female	0,19***	0,06***	0,08***	-0,14***	-	-	-	-	-
Age	-	-	-	-	0,00*	0,00*	-	-	-0,00**
High Education	-	-	-	-	-	-	-	-	-
Middle Education	-	-	-	-	-	-	-	-	-
Low Education	-	-	-	-	-	-	-	-	-
Household Size	-	-	-	-	-	-	-	-	-
Make Ends Meet	-	-	-	-	N/A	N/A	N/A	N/A	N/A
North	-	0,07***	0,11***	-0,18***	-	-	-	-	-
Center	-	0,05**	0,08**	-0,14**	0,07*	-	-	-	-0,08**
Permanent Job	-0,10*	-	-	-	-0,17***	-	-	-	0,14***
Private Sector	-	-	-	-	-	-	-	-	-
Tertiary Sector	-0,10**	-	-	-	-	-	-	-	-
# Observations	488	485			477	482			

Significance level: *** $p < 0.001$; ** $p < 0.05$; *** $p < 0.1$; “-” are the variables that were dropped with stepwise

Table 12.3 – Robustness checks: education: standard, ordered and multinomial average marginal effects for *Model 3 – Social Resources*

Model 3 – Social Resources									
Regression output (marginal effects - dy/dx)	Anxiety	Depression	At Risk of Depression	Normal Status	Burnout	Emotional Burnout	Physical Burnout	Emotional & Physical Burnout	No burnout
Work Intensity: Quantitative Demands									
High Speed	0,15***	-	-	-	0,11**	-	-	0,06**	-0,13***
Tight Deadlines	0,09*	0,02*	0,04*	-0,07*	-	-	-	-	-
Work Intensity: Qualitative or Emotional Demands									
Dealing Clients	-	-	-	-	-	-	-	-	-
Emotional Disturbances	0,19***	0,03**	0,05**	-0,08**	0,15***	0,03**	-	0,13***	-0,15***
Work Extensity: Work Time Arrangement									
Work-Life Unbalance	-	0,07***	0,13***	-0,20***	0,18***	-	0,12***	0,07***	-0,18***
Work Free Time	0,11***	0,03**	0,05**	-0,08**	0,08*	-	0,06*	-	-0,07**
Organizational Resources: Organizational Participation									
Influence Decisions	-0,11*	-0,05***	-0,09***	0,14***	-	-	-	-	-
Organizational Resources: Autonomy									
Autonomy Method Work	-	-	-	-	-	-	-	-	-
Rewards									
Job Security	-	-	-	-	-	-	-	-	-
Work Recognition	-	-	-	-	-0,12**	-0,04**	-	-0,06***	0,08*
Social Resources: Social Support									
Colleagues Help Support	-	-	-	-	-0,18*	-0,05**	-	-	-
Manager Help Support	-	-	-	-	-	-	-	-	-
Controls									
Female	0,09**	0,04***	0,06***	-0,10***	-	-	-	-	-
Age	-	-	-	-	-	-	-	-	-
High Education	-	-	-	-	-	-	-	-	-
Middle Education	-0,07*	-	-	-	-	-	-	-	-
Low Education	-	-	-	-	-	-	-	-	-
Household Size	-	-	-	-	-	-	-	-	-
Make Ends Meet	-	-	-	-	N/A	N/A	N/A	N/A	N/A
North	0,08*	0,04*	0,08*	-0,12*	-	-	-	-	-
Center	-	0,04*	0,07*	-0,12*	-	-	-	-	-
Permanent Job	-0,13**	-	-	-	-	-	-	-	-
Private Sector	-	-	-	-	-	-	-	-	-
Tertiary Sector	-	-	-	-	-	-	-	-	-
# Observations	476	472			463	736			

Significance level: *** $p < 0.001$; ** $p < 0.05$; *** $p < 0.1$; “-” are the variables that were dropped with stepwise

Appendix 13

Table 13.1 – Results: robustness checks

<i>Robustness Checks</i>	Anxiety	Burnout	Depression
Micro Entreprises			
Small Entreprises			
Medium-Sized Entreprises	+	+	
Large Entreprises			
Telework	+	-	+
Agriculture	+		-
Commerce and Hospitality			-
Construction	+		
Education		+	-
Financial Services	+		
Health		+	-
Industry			
Other Services			
Public Administration			
Transportation and Storage			
Low Education			
Middle Education	-	-	-
High Education		-	

Appendix 14

Table 14.1 – Coefficients' magnitude across the different models considered for each of the outcomes under analysis (i.e. original models, final models, robustness checks)

	Anxiety		Burnout		Depression
High Speed	0,14 - 0,24	High Speed	0,11 - 0,17	Tight Deadlines	0,02 - 0,07
Tight Deadlines	0,08 - 0,12	Emotional Disturbances	0,13 - 0,19	Emotional Disturbances	0,03 - 0,07
Emotional Disturbances	0,16 - 0,20	Work-Life Unbalance	0,17 - 0,21	Work-Life Unbalance	0,03 - 0,14
Work-Life Unbalance	0,11 - 0,13	Work Free Time	0,07 - 0,11	Work Free Time	0,02 - 0,06
Work Free Time	0,07 - 0,13	Consulted Objectives	-0,12 - -0,10	Consulted Objectives	-0,07 - -0,05
Influence Decisions	-0,14 - -0,10	Career Prospects	-0,16 - -0,14	Paid Appropriately	-0,11 - -0,06
Paid Appropriately	-0,14 - -0,11	Colleagues Help Support	-0,20 - -0,18		