embryo-project | Ergonomics Poster 1/2

2P4MWork





Psychosocial Profiles of Municipal Workers: a validation study

Principal Investigator / PI Teresa Patrone Cotrim (TPC)

Integrated Researchers of CIAUD José Domingos Carvalhais (JDC); Filipa Carvalho (FC); Rui Bettencourt Melo (RBM)

Collaborating Researchers of CIAUD None

External Researchers PhD student; Anabela Pereira (AP); Pedro Bem-Haja (PBH); Carlos Fernandes da Silva (CFS)

Keywords

Psychosocial Factors; COPSOQ III; Municipal Workers

ABSTRACT + IMAGES

Ageing is a trend across the globe that affects demographic distribution with a huge impact on the age profile of working populations. Municipal workers are an ageing population with average ages around 50 years old, in Portugal. To manage the challenges of an ageing population many governments increased retirement age, challenging labour markets and economies (OCDE, 2019). To accomplish the goal of sustainable employment a range of strategies is necessary to ensure longer and productive working careers. This is only possible with a comprehensive working system approach that ensures workers will be mentally and physically able to remain at work (Ilmarinen, 2019). To achieve these goals will be essential a monitoring system addressing changes in health and working factors and allowing the definition of measures to improve individuals' health and the quality of working conditions. In Portugal, little is known about the psychosocial profiles of municipal workers and their changes during working life. The main aim of this project is to validate an instrument that allows a global overview of psychosocial factors, the Copenhagen Psychosocial Questionnaire (COPSOQ) in its medium version of COPSOQ III, among municipal workers. The second aim encompasses the development of reference values and profiles for municipal workers regarding the psychosocial factors, allowing the definition of prevention plans by the municipalities and comparing results across time, and between different municipalities. The project will include a PhD student full-time dedicated for 4 months and four researchers of CIAUD. External researchers will support the research based on existing network. The set of five tasks will be accomplished during a period of 18 months.

To achieve the goals of a better quality of working life, as the active population ages it is necessary to assure the balance between work demands and individual resources (Ilmarinen, 2019). Nevertheless, more than one in four older workers experience job strain as measured by the difference between the demands of their jobs and the resources available to handle these demands (OECD, 2019). Part of these demands are related to work organization and the absence of an adequate assessment of psychosocial risk factors. Among some of the psychosocial factors that hinder longer working lives in many countries are age discrimination and negative employer attitudes towards older workers (OECD, 2019). Nevertheless, there are organizational factors that support the maintenance of workability over time, like the possibility of adjusting the working time, having the training to improve individual skills, good sense of community

Partner Institutions

Universidade de Aveiro; Universidade de Évora; Câmara Muncipal Sintra; Câmara Municipal Torres Vedras

Expected Future Partner Institutions

Municipalities from different geographical areas based on NUTS II

OBJECTIVES

To validate the medium version of COPSOQ III among municipal workers.

To develop reference values and profiles for municipal workers regarding the psychosocial factors.

To define major recommendations regarding the prevention of psychosocial risk factors and the promotion of sustainable, inclusive and healthy workplaces at municipalities. This project is based on previous research and experience, namely with the project "Measurement of Human Work Index in Portuguese Workers" (FCT: PTDC/SAL-ESA/66163/2006) at a national level. This past project included the validation of the medium version of COPSOQ II (Silva et al, 2012) used in research (Cotrim et al, 2014; Cotrim et al, 2018; Cotrim et al, 2019; Cotrim et al, 2020; Ribeiro et al, 2020; Lima, Parma, Cotrim & Moro, 2019) and enterprises widely in Portugal. But now, the international development of the third version, COPSOQ III (Burr et al, 2019; Cotrim et al, 2017), requires a national validation again.

at work, and good meaning of work (Cotrim et al, 2019).

This project is crucial for Ergonomics and Occupational Health and Safety (OHS) because valid and reliable measurement instruments are required for sustained decision-making. It will also promote productive employment and fair working conditions for all, by ensuring healthy, safe and well-adapted work environments in accordance with the 8th Sustainable Development goal of UN.

All employers, including those leading municipalities should be given guidance to manage the age-diverse workforce and psychosocial risks to allow all workers to stay longer in employment and maintain their productivity (Fernandes & Pereira, 2016; OECD, 2019). This can be done more easily using data at a national level, normative and medium values by category through the years, and allowing the comparison of data and fostering benchmarking practices from each municipality with the national results. The project aims at striving and enhancing organizational practices through scientific knowledge. The data collection and analysis process will provide a diagnosis of psychosocial factors at municipalities guiding to major recommendations regarding the prevention of psychosocial risk factors and the promotion of sustainable, inclusive and healthy workplaces.

BIBLIOGRAPHIC REFERENCES

Cotrim, T. P.; Bem-Haja, P.; Pereira, A.; Fernandes, C.; Azevedo, R.; Antunes, S.; S. Pinto, J.; Kanazawa, F.; Souto, I.; Brito, E.; and Silva, C. F. 2022. "The Portuguese Third Version of the Copenhagen Psychosocial Questionnaire: Preliminary Validation Studies of the Middle Version among Municipal and Healthcare Workers". International Journal of Environmental Research and Public Health, 19, 3: 1167. https://doi.org/10.3390/ijerph19031167

Cotrim, T., Bem-Haja, P., Amaral, V., Pereira, A., Silva, C.F. (2017). Evolução do Questionário Psicossocial de Copenhaga: do COPSOQ II para o COPSOQ III. International Journal on Working Conditions, 14: 105-115, ISSN 2182-9535.

Cotrim, T.P., Ribeiro, C., Teles, J., Reis,V., Guerreiro, M.J., Janicas, A.S., Candeias, S., Costa, M. (2019). "Monitoring Work Ability Index During a Two-Year Period Among Portuguese Municipality Workers". International Journal of Environmental Research and Public Health, 16, 3674. doi:10.3390/ijerph16193674.

Cotrim, T., Soares, G., Ferreira, P., Barnabé, R., Teles, J., Prata, N. (2020). Measuring psychosocial factors and predicting work ability among cemetery workers. <u>Work</u>, vol. 65, no. 1, pp. 111-119, 2020 DOI: 10.3233/WOR-193063.

Silva, C.; Amaral, V.; Pereira, Alexandra; Bem-Haja, P.; Rodrigues, V.; Pereira, Anabela; Cotrim, T.; Silvério, J.; Nossa, P., (2012). Copenhagen Psychosocial Questionnaire (COPSOQ): Portugal e Países Africanos de Língua Oficial Portuguesa, 1ª Edição, Ed. Análise Exacta, FCT: PTDC/SAL-ESA/66163/2006 embryo-project | Ergonomics **Poster 2/2**

2P4MWork





SCIENTIFIC RELEVANCE FOR THE DISCIPLINE

A comprehensive working system approach ensures workers will be mentally and physically able to remain at work. To achieve these goals will be essential a monitoring system addressing changes in health and working factors and allowing the definition of measures to improve individuals' health and the quality of working conditions. The validation of the medium version of COPSOQ III will contribute to the availability of a valid and reliable tool for ergonomics and health and safety professionals assess psychosocial factors at the workplaces. This project will produce data at a national level, normative and medium values by category useful for future research.

EXPECTED ECONOMIC AND SOCIAL IMPACT

This project is crucial for Ergonomics and Occupational Health and Safety (OHS) because valid and reliable measurement instruments are required for sustained decision-making. It will also promote productive employment and fair working conditions for all, by ensuring healthy, safe and well-adapted work environments in accordance with the 8th Sustainable Development goal of UN.

Additionally, European workers consider stress one of the main causes of lost working days. Meaning that to accomplish the goal of sustainable employment it is necessary to ensure longer and productive working careers and to prevent psychosocial risk factors.

Employers leading municipalities should be given guidance to manage the age-diverse workforce and psychosocial risks to allow all workers to stay longer in employment and maintain their productivity. This can be done more easily using data at a national level, normative and medium values by category (sex, age, occupational category), and allowing the comparison of data and fostering benchmarking practices from each municipality with the national results. The project aims at striving and enhancing organizational practices through scientific knowledge.

RESEARCH PLAN AND TASKS

The results from the European Surveys of Enterprises on New and Emerging Risks (ESENER 1, 2 and 3) showed that enterprises report the presence of psychosocial risk factors over the years and, more important, they still perceive difficulties in assessing and managing this type of risks, and some of the reasons are lack of necessary expertise or procedures too burdensome (EU-OSHA, 2010; EU-OSHA, 2015; EU-OSHA, 2019).

Linked to changes that took place during the economic crisis 2008-2014, there was an increase in some psychosocial risk factors in Europe, such as job insecurity, work intensity, and violence and harassment (Eurofound, 2013). In Portugal, some studies among municipal workers that analyzed the period 2015-2017, showed an improvement after the end of the economic crisis, with a decrease in some psychosocial risk factors (such as job insecurity, role conflicts, horizontal trust, predictability, recognition/rewards, support from superiors, quality of leadership, vertical trust, organizational justice, the meaning of work, and work satisfaction (Cotrim et al, 2019). Looking at the present worldwide macroeconomic scenario, with the Covid-19 pandemics, it is expectable that the previous trend will appear again, and psychosocial risk factors tend to intensify and exacerbate.

Supported by the above considerations and following the previous experience of the research team (Cotrim et al, 2014; Cotrim et al, 2018; Cotrim et al, 2019; Cotrim et al, 2020; Cotrim et al, 2022; Fernandes et al, 2016; Lima et al, 2019; Ribeiro et al, 2020; Silva et al, 2010; Silva et al, 2012; Silva et al, 2014) this project aims at the validation of the Portuguese Medium Version of COPSOQ III among Municipal Workers.

The development of a national validated tool will allow municipalities to easily assess data regarding the changes in psychosocial factors, will inform about data at a national level, normative and medium values by municipality, and allowing the comparison of data. Indirectly, the availability of national data on psychosocial factors among municipalities will contribute to the definition of global strategies that address the risk factors targeting the improvement of health and wellbeing for all ages at work. The second aim encompasses the development of guidelines. Based on the data collection process, it will be possible to define major recommendations regarding the prevention of psychosocial risk factors and the promotion of sustainable, inclusive and healthy workplaces.

Generally, the main results of the project may help stakeholders at municipalities in making an informed decision and deciding what programs of occupational risks prevention or health promotion must be implemented.

Concerning the methodological plan, the project will be divided into five main phases: 1. State of the art and conceptual framework; 2. Data Collection at national level; 3. Validation of the Portuguese medium version of COPSOQ III; 4. Development of Guidelines and reference values; 5. Dissemination of Results.

First phase, "State of the Art and Conceptual Framework" will be devoted to extended and updated literature review and the development of the conceptual framework to lead the project methodology.

This task will take about 2 months to be concluded by TPC, AP, CFS.

Second phase "Data Collection at a national level" will start with planning and implementation of data collection. Data collection will be made at distance with the distribution of the questionnaire online. This will allow the data collection at a national level.

This task will take about 4 months to be concluded by TPC and PhD student.

Third phase "Validation of the Portuguese medium version of COPSOQ III" will include the measurement of psychometric properties, such as validity and reliability. Validity refers to the ability of an instrument to measure what it is intended to measure, while reliability can be understood as accuracy or the extent to which repeated measurements lead to similar results.

This task will take about 4 months to be concluded by TPC, PBH and PhD student.

Fourth phase "Development of Guidelines and reference values" is based on the data collected during the project and the translation of research into policy and major practice guidelines. Being able to read the reality and assess scenarios will allow municipalities to include within practice scientific data to support decision making and policies drawing.

This task will take about 4 months to be concluded by TPC, AP, CFS, RBM, JDC.

Last phase "Dissemination of Results" will comprise the share of the project results through scientific publications and workshops among municipalities to share the results and provide guidelines.

This task will take about 4 months to be concluded by TPC, AP, CFS, RBM, JDC, FC and PhD student.

The project will take 18 months to be fully executed.

A PhD student will be fully dedicated to this project. External researchers are part of the team that submitted a national project to FCT regarding the validation of the medium version of COPSOQ III for all activity sectors in the last call. They will be included in this project concerning municipal workers. Four researchers of CIAUD will be part of the project team, having a more active role during data processing and the preparation of the conference presentation.

EXPECTED SCIENTIFIC RESULTS

An Ergonomics PhD student will write and discuss his thesis based on this research study.

Relevant information will be produced for municipal OHS teams and municipal leaders to be used within the Ergonomics and OHS domains, namely reference values specific for the municipalities. Guidelines concerning major principles regarding the prevention of psychosocial risks will be produced.

In order to accomplish dissemination of the results, a presentation at an international Conference is foreseen.

Moreover, an article is due to be submitted for publication on an International Journal in the field of Ergonomics _ and Human Factors, Q1 or Q2, peer reviewed journals.

Workshops at the municipalities will be organized in order to share the results with all participants and stakeholders.

BUDGET: € 7478,56

Funding in a total of € 7478,56 is requested for:

Human resources: a 4-month research scholarship for a full time PhD student to execute most of the data collection work and municipalities reports (4 months * 1144,64 € = 4578,56 €);

Missions: International Ergonomics Association Conference (http://iea2024.com/) registration fee to disseminate the obtained results (€ 700,00);

Demonstration, Promotion and Dissemination of the Project Results: article processing charge in open-acess indexed international journals making it free for readers which enables reaching a larger community of professionals (€ 2200,00).