sustainability

MDPI

Article

Assessing Psychosocial Work Conditions: Preliminary Validation of the Portuguese Short Version of the Copenhagen Psychosocial Questionnaire III

Ana Pinto [1], Carla Carvalho [2], Lisete S. Mónico [2], Isabel Moio [3], Joel Alves [4,5] and Tânia M. Lima [4,5,*]

1 CeBER—Centre for Business and Economics Research, Faculty of Economics, University of Coimbra, Av. Dias da Silva, 165, 3004-512 Coimbra, Portugal; ana.pinto@dem.uc.pt
2 CINEICC—Center for Research in Neuropsychology and Cognitive and Behavioral Intervention, Faculty of Psychology and Sciences of Education, University of Coimbra, Rua do Colégio Novo, s/n, 3000-115 Coimbra, Portugal; ccarvalho@fpce.uc.pt (C.C.); lisete.monico@fpce.uc.pt (L.S.M.)
3 Faculty of Psychology and Sciences of Education, University of Coimbra, Rua do Colégio Novo, s/n, 3000-115 Coimbra, Portugal; isabel.smoio@gmail.com
4 Department of Electromechanical Engineering, University of Beira Interior, Calçada Fonte do Lameiro, 6201-001 Covilhã, Portugal; joel.alves@ubi.pt
5 C-MAST—Center for Mechanical and Aerospace Science and Technologies, Calçada Fonte do Lameiro, 6201-001 Covilhã, Portugal
* Correspondence: tmlima@ubi.pt

Abstract: The working environment is a crucial aspect to considerfor guaranteeing a sustainable life. However, workers are exposed to various health risks daily, namely, psychological risks. These risks can be due to imbalances on the part of the workers themselves or to organisational and interfunctional risk factors arising from interactions within companies and the challenges of professional responsibilities. Over the past 20 years, the Copenhagen Psychosocial Questionnaire (COPSOQ) has become one of the most prominent tools for assessing psychological and social factors at work. This study aimed to present, discuss, and evaluate aspects of the cultural adaptation and preliminary psychometric validation of the short version of COPSOQ III for a Portuguese sample. For this purpose, we used data from 361 participants employed in the industrial (30.7%) and services (69.3%) sectors across various regions of Portugal. A third-order confirmatory factor analysis (CFA) was performed using AMOS, revealing an acceptable fit. The results also demonstrate the robustness of the measurement model, confirming its reliability and validity. In light of some limitations of this preliminary study, directions for future research are proposed. Thus, a tool for assessing psychosocial risks is disseminated, making it possible to achieve more sustainable working environments where the operator's health and well-being are prioritised.

Keywords: COPSOQ III Portuguese short version; psychosocial risk factors; psychosocial working conditions; validation

Citation: Pinto, A.; Carvalho, C.; Mónico, L.S.; Moio, I.; Alves, J.; Lima, T.M. Assessing Psychosocial Work Conditions: Preliminary Validation of the Portuguese Short Version of the Copenhagen Psychosocial Questionnaire III. *Sustainability* **2024**, *16*, 7479. https://doi.org/10.3390/su16177479

Academic Editor: Simone De Sio

Received: 12 July 2024
Revised: 9 August 2024
Accepted: 25 August 2024
Published: 29 August 2024

1. Introduction

The psychosocial work environment is considered one of the most important work environments in contemporary societies [1–3]. Increasingly, living conditions and well-being at work are influenced by safety and physical health in the workplace and psychosocial risks [4,5].

In this sense, psychosocial factors are already recognised as a worldwide problem which affects all countries, all professions, and all jobs. According to the International Labour Organization (ILO), the increase in flexibility and precariousness of employment, the intensification of work, and problems in relationships in the workplace, such as humiliation (bullying) and psychological harassment (mobbing), are some of the factors that cause an increase in work-related stress [6]. This issue is of enormous relevance, since

psychosocial risks and lack of psychological health at work have a huge cost for humans and a great impact on society and the economy [3,7,8]. This is why psychosocial risks are well-known as a key priority to be explored in the work of the future [4,9].

The assessment and management of psychosocial risks are fundamental, due to their impact on workers' health and the financial burden they can represent for organisations.

Given the damage that psychosocial risks can have on workers' mental, physical and social health, these must be identified, analysed, evaluated and controlled [10]. Furthermore, they also have a financial impact on organisations, due to the high costs associated with them due to the reduction in employee productivity and the money spent on temporary incapacity for work [11,12].

Occupational stress is one of Europe's biggest health and safety challenges [3,13]. Between 50 and 60% of lost working days are estimated to be due to work-related stress and psychosocial risks [14], and almost one in four workers is affected significantly [13]. Given the constant changes in professional terms, which increasingly demand more from workers, this number suggests a growing trend. For example, prevention and promotion of psychological health and well-being in Portuguese companies can reduce productivity losses by at least 30%, resulting in savings of around EUR 1.6 billion per year [12].

In this sense, where psychosocial factors at work worldwide present individual, social, and economic impacts, assessing, preventing, and intervening in psychosocial risks and implementing measures to promote psychological health and well-being are basic strategies to promote healthy workplaces. In that respect, for Schulte et al. [2] (p. 2), "waiting until the effects are fully revealed to address them could be highly problematic and inadequate. Instead, anticipatory thinking regarding new and persistent factors affecting work and workers is required". For this reason, it is crucial to foster healthy workplaces and subjective well-being by assessing and measuring the psychosocial work environment. In general terms, this means ensuring a set of conditions such as self-efficacy, the inclusion of colleagues and supervisors, stress management, the control of and the meaning attributed to work, recognition and reward, the physical work context and the psychological, the conciliation between personal and professional life, and management and leadership [12].

To define, implement, and assess preventive measures at the workplace, as well as broader preventive policies, it is essential to systematically gather, document, analyse, and share critical data on workers' exposure to psychosocial factors. This task is particularly challenging, given the varied nature of the modern workforce and the complex scientific and technical requirements necessary to produce actionable insights.

In recent years, the most significant challenges in preventing psychosocial risks have been the sensitivity of the issue, handling difficult customers, and the shortage of awareness, resources, training, and information across Europe [15]. However, despite international conventions that protect male and female workers' physical and psychological health, the adherence to and implementation of policies and strategies to prevent psychosocial risks still need to be improved [3,15]. Portugal has national legislation referring to psychosocial risks, but, as in other European countries, few companies inform workers about psychosocial risks (in Europe, only about 20% of companies do so), with the number of companies that implement prevention programs being even less conspicuous [9].

The Copenhagen Psychosocial Questionnaire (COPSOQ) was developed around the year 2000. In a few years, it obtained important international recognition, becoming a relevant instrument for assessing psychosocial factors at work, prevention being its main objective [16]. Given its potential, one should look at the results of applying COPSOQ as an opportunity to identify potential areas of risk to be improved in the organisation of work, as this identification is not an end in itself, but a signalling strategy, necessarily preliminary to adequate and effective prevention. As a measure of the psychosocial work environment, the COPSOQ addresses several dimensions of the workplace and covers the greatest possible diversity of psychosocial dimensions that may exist in the world of work, supported by the most accepted theories in this area, as it is not linked to a single theory [16–18]. These characteristics make the COPSOQ a useful instrument in any

work context, whether in the industrial or service sector, because by gathering valid and reliable information on the main risk factors it becomes an adequate instrument to meet the needs of psychosocial risk management processes advocated by ISO 45003:2021 [19], ISO 45001:2018 [20] or even ISO 9001:2015 [21], as part of an integrated quality, health, and safety management system [22].

COPSOQ has been adapted to several languages and validated in several countries [16,23–25] and is being applied in thousands of assessments of psychosocial factors in companies and many scientific research projects, in the most diverse occupational contexts, from the working population in general [26], to the health sector [27–29], transport [30] and public administration [31]. COPSOQ has also been used outside Europe [32–36].

This instrument was reviewed in 2010, giving place to a new version: the COPSOQ II [37]. Several changes were introduced in this version, including dimensions and questionnaire items [24]. Both versions (COPSOQ I and II) have short, middle, and long versions. Originally, the short and middle versions were intended to be used in practical settings, and the long version in research contexts [24,37]. Later, it was possible to conclude that there was also a need for shorter versions in the research and that the intermediate version had sufficient reliability [15]. In Portugal, the validation of COPSOQ II started in 2006, and since then, it has been used in several national studies for intervention purposes in a variety of occupations and workplaces [28,38].

In 2009, the COPSOQ International Network was founded, aiming at cooperation to take advantage of the cross-cultural design of the questionnaire and the need to coordinate the discussion on standards for the assessment of psychosocial factors in general and with the COPSOQ in particular [39]. This network aims, therefore, to simplify the communication between different groups, as it is linked to governments, universities and research institutions, companies, and social agents in Europe and other countries worldwide. The development of COPSOQ and the perpetuation of a common content favour global comparability, contributing to the harmonisation of information and international statistics on work and psychosocial stress in the workplace [40].

However, the International Network introduced a third version of the questionnaire: the Copenhagen Psychosocial Questionnaire Version III (COPSOQ III) [24]. This update was driven by several factors: evolving societal trends due to globalisation and digitalization, which were further impacted by the 2008 economic crisis; scientific advancements seeking a more comprehensive view on job satisfaction; and practical experience with the questionnaire that highlighted the need for item modifications to better suit various national, cultural, and occupational contexts [4,24]. Additionally, numerous new risk factors have been identified in recent years, and the COPSOQ III not only assesses these newly defined psychosocial risks but also includes current psychosocial risks [15].

This latest version provides an enhanced tool that allows for comparability across different populations and time periods. It addresses the needs of various stakeholders, incorporates insights from international experiences, and is designed to be flexibly adapted to national/ and industry-specific contexts without losing the ability for international and longitudinal comparisons [24]. According to the same source, since 2016, COPSOQ III has been adapted and validated in several countries, including Canada, Spain, France, Germany, Sweden, and Turkey. Both short and middle versions of COPSOQ III continue to be developed for use within companies.

The aim of this study is to present, discuss, and evaluate aspects of the cross-cultural adaptation, reliability, and preliminary validity of the short version of COPSOQ III in Portuguese. This involves detailing the processes and criteria used to ensure that the adapted version is suitable for application in research and practical contexts in Portugal.

2. Materials and Methods

2.1. Study Design

The study that integrates the present investigation is non-experimental, an ex-post facto investigation. Indeed, it was impossible to establish causal relationships between

variables, but rather directional relationships between variables. Considering the defined objective, the survey was used as the study's methodology, and the self-administered questionnaire was used to collect the necessary information. Using LimeSurvey, the questionnaire was applied to national companies in several countries' regional industrial (30.7%) and services (69.3%) sectors.

2.2. Sample

A total of 415 responses were obtained, of which 361 were considered valid. Of these participants, 60.4% were females between 19 and 69 years old, with a mean age of 41.59 (SD = 10.29). The average seniority in the current job is 11.7 years (SD = 10.14). Concerning working hours, 84.5% of participants work during the day, 13.6% work shifts and 1.7% work at night.

2.3. Instrument

COPSOQ Portugal's mission is to validate the Portuguese version of the COPSOQ III questionnaire. The group defined a consensus version of the long version of the questionnaire, which served as a basis for defining the three versions (short, medium, and long) according to the instructions of the International Steering Committee. Each of the three work groups that constitute COPSOQ Portugal validated a version.

Table 1 shows the domains, dimensions, and items of the COPSOQ III questionnaire (short version).

Table 1. Domains, Dimensions and Items of the Portuguese Short Version of COPSOQ III in Portuguese/English.

Domain	Dimension	Items
Exigências Laborais/Demands at Work	Exigências Quantitativas/Quantitative Demands	Q1. Com que frequência fica com trabalho atrasado?/Do you get behind with your work? (New) Q2. Com que frequência não tem tempo para completar todas as tarefas do seu trabalho?/How often do you not have time to complete all your work tasks?
	Ritmo de Trabalho/Work Pace	Q3. Precisa de trabalhar muito rapidamente?/Do you have to work very fast? Q4. Trabalha a um ritmo elevado ao longo de toda a jornada de trabalho?/Do you work at a high pace throughout the day? (New)
	Exigências Emocionais/Emotional Demands	Q5. No seu trabalho tem de lidar com os problemas pessoais de outras pessoas?/Do you have to deal with other people's personal problems at work? (New) Q6. O seu trabalho exige emocionalmente de si? Is your work emotionally demanding?
Organização do Trabalho e Conteúdo/Work Organization and Job Contents	Influência no Trabalho/Influence at Work	Q7. Tem um elevado grau de influência nas decisões sobre o seu trabalho?/Do you have a large degree of influence on the decisions concerning your work?
	Possibilidades de Desenvolvimento/Development Possibilities	Q8. O seu trabalho permite-lhe aprender coisas novas?/Do you have the possibility of learning new things through your work? Q9. O seu trabalho permite-lhe usar as suas competências ou habilitações? Can you use your skills or expertise in your work?

Table 1. *Cont.*

Domain	Dimension	Items
Relações Sociais e Liderança/Interpersonal Relations and Leadership	Previsibilidade/Predictability	Q10. No seu local de trabalho é informado/a com antecedência sobre decisões importantes, mudanças ou planos para o futuro?/At your place of work, are you informed well in advance concerning, for example, important decisions, changes or plans for the future? Q11. Recebe toda a informação de que necessita para fazer bem o seu trabalho?/Do you receive all the information you need in order to do your work well?
	Reconhecimento/Recognition	Q12. O seu trabalho é reconhecido e apreciado pela gestão de topo (administração, direção, gerência)?/Is your work recognized and appreciated by the management?
	Transparência do Papel Laboral/Role Clarity	Q13. O seu trabalho tem objetivos claros?/Does your work have clear objectives?
	Conflito de Papéis Laborais/Role Conflicts	Q14. Faz coisas no seu trabalho com que uns concordam mas outros não?/Are contradictory demands placed on you at work? Q15. Por vezes tem que fazer coisas que deveriam ser feitas de outra maneira?/Do you sometimes have to do things which ought to have been done in a different way?
	Qualidade da Liderança/Quality of Leadership	Em relação à sua chefia directa, até que ponto considera que . . . /To what extent would you say that your immediate superior . . . Q16. É bom/boa no planeamento do trabalho?/Are you good at work planning? Q17. É bom/boa a resolver conflitos?/Are you good at solving conflicts?
	Suporte Social de Colegas/Social Support from Colleagues	Q18. Com que frequência tem ajuda e apoio dos/as seus/suas colegas de trabalho, se necessário? How often do you get help and support from your colleagues, if necessary?
	Suporte Social de Superiores/Social Support from Supervisors	Q19. Com que frequência tem ajuda e apoio da sua chefia direta, se necessário?/How often do you get help and support from your immediate supervisor, if needed?
	Sentido de Pertença a Comunidade/Sense of Community at Work	Q20. Existe um bom ambiente de trabalho entre si e os/as seus/suas colegas?/Is there a good atmosphere between you and your colleagues?
Capital Social/Social Capital	Justiça Organizacional/Organizational Justice	Q21. Os conflitos são resolvidos de uma forma justa?/Are conflicts resolved in a fair way? Q22. O trabalho é distribuído de forma justa?/Is the work distributed fairly?
	Confiança Vertical/Vertical Trust	Q23. Os trabalhadores/as confiam na informação que lhes é transmitida pela gestão de topo (administração, direção, gerência)?/Can the employees trust the information that comes from the management?
Organização do Trabalho e Conteúdo/Work Organization and Job Contents	Significado do Trabalho/Meaning of Work	Q24. O seu trabalho tem algum significado para si?/Is your work meaningful?

Table 1. *Cont.*

Domain	Dimension	Items
Interface Trabalho-Indivíduo/Work Individual Interface	Insegurança Laboral/Job Insecurity	Q25. Sente-se preocupado/a em ficar desempregado/a?/Are you worried about becoming unemployed? Q26. Sente-se preocupado/a com a dificuldade em encontrar outro trabalho se ficar desempregado/a?/Are you worried about it being difficult for you to find another job if you became unemployed? (New)
	Insegurança com as Condições de Trabalho/Insecurity over Working Conditions (New)	Q27. Sente-se preocupado/a em ser transferido/a para outro posto de trabalho contra a sua vontade?/Are you worried about being transferred to another job against your will?
Capital Social/Social Capital	Confiança vertical/ Vertical trust	Q28. A gestão de topo (administração, direção, gerência) confia nos seus trabalhadores para fazerem o seu trabalho bem?/Does the management trust the employees to do their work well?
Saúde e Bem-Estar/Health and Well-Being	Auto-Avaliação da Saúde/Self-Rated Health	Q29. Em geral, sente que a sua saúde é:/In general, would you say your health is:
Interface Trabalho-Indivíduo/ Work/Individual Interface	Satisfação com o Trabalho/Job Satisfaction	Em relação ao seu trabalho em geral, quão satisfeito está com . . ./Regarding your work in general. How pleased are you with . . . Q30. O seu trabalho de uma forma global?/Your job as a whole, everything taken into consideration?
	Conflito Trabalho-Família/Work–Life Conflict	Q31. Há momentos em que precisa de estar no trabalho e em casa ao mesmo tempo?/Are there times when you need to be at work and at home at the same time? (New) Q32. Sinto que o meu trabalho me exige tanta energia, que acaba por afetar a minha vida privada negativamente?/Do you feel that your work drains so much of your energy that it has a negative effect on your private life? Q33. Sinto que o meu trabalho me exige tanto tempo, que acaba por afetar a minha vida privada negativamente?/Do you feel that your work takes so much of your time that it has a negative effect on your private life? Q34. As exigências do meu trabalho interferem com a minha vida privada e familiar?/The demands of my work interfere with my private and family life (New) Q35. Devido ao meu trabalho tenho que alterar os meus planos familiares e pessoais?/Due to work-related duties, I have to make changes to my plans for private and family activities? (New)

2.4. Translation and Validation Procedure

The study of translating and empirically determining which attributes were included followed the guidelines outlined by Hill and Hill [41] and Tsang, Royce and Terkawi [42]. This process was divided into two main stages: stage 1 focused on scale adaptation and translation, while stage 2 involved procedures to validate the scale (see Figure 1).

For cultural adaptation, the short version of the COPSOQ III questionnaire was translated from English to Portuguese by two independent native Portuguese speakers. The translations were then synthesised and reviewed in two rounds by an expert committee (EC) consisting of three professionals with at least five years of research experience. This committee evaluated the semantic equivalence and provided feedback to ensure the items were understandable and relevant in Portuguese. The experts also suggested necessary adaptations. After incorporating the EC's recommendations and achieving consensus among the experts, the preliminary version was back-translated by two bilingual native English translators and compared with the original text.

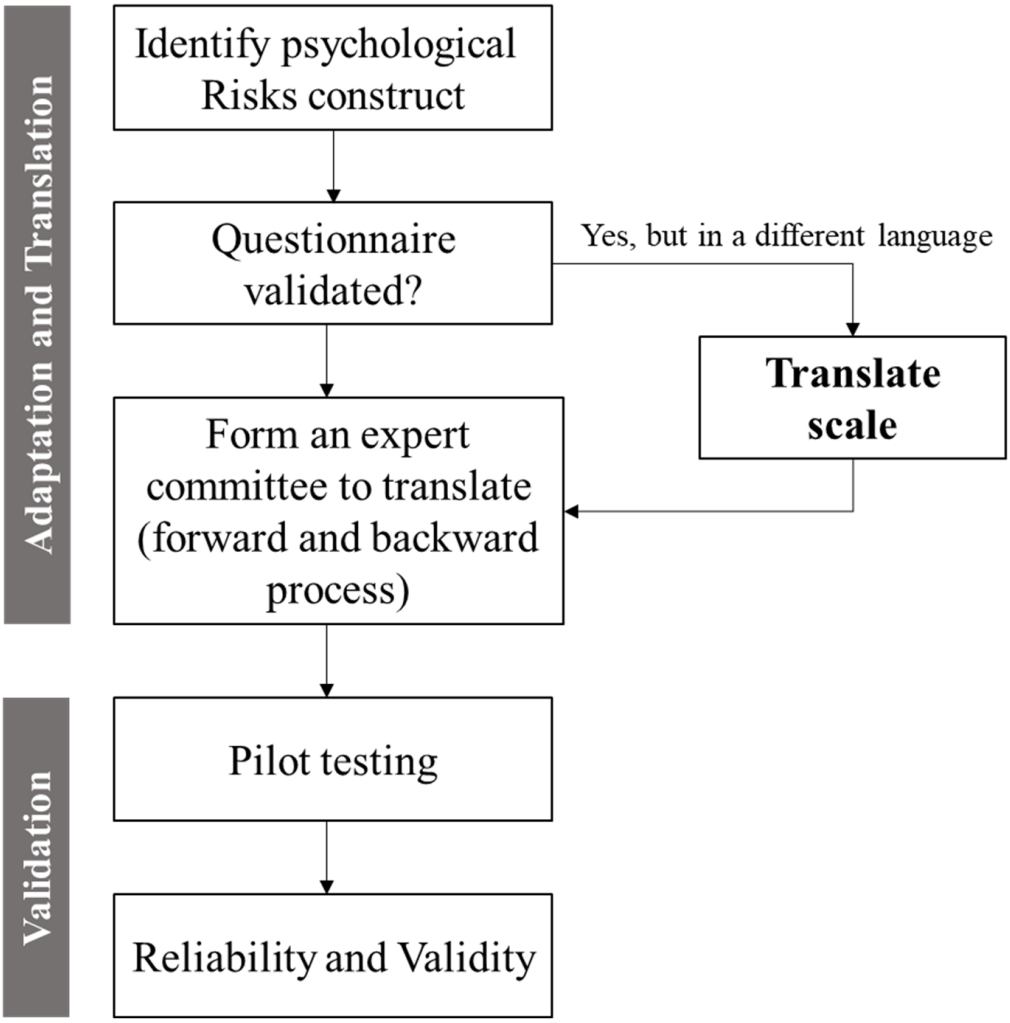

Figure 1. Stages of scale adaptation, translation, and validation of the Portuguese Short Version of the COPSOQ III.

A pilot test was conducted in person with 10 individuals from various professional and socio-demographic backgrounds using this initial version. These individuals were excluded from the main study. They were provided with the short version of the COPSOQ III questionnaire, a sociodemographic information form, and an additional method to report their comments on the scale. This pilot test aimed to determine whether all participants could understand and complete the scale satisfactorily and to estimate the completion time required. For this purpose, we used the think-aloud protocol [43], which allowed us to identify and modify items that were reported as difficult to understand in the final version of the instrument.

2.5. Data Analysis

The short version of COPSOQ III was submitted for content, reliability and construct validations [44–46]. All the analyses were completed using the statistical programs SPSS and AMOS for the Windows operative system. Outliers were analysed according to Mahalanobis squared distance [47], but no relevant values were found. The normality of the variables was assessed by the coefficients of skewness (Sk) and kurtosis (Ku), showing that no variable presented values violating normal distribution, $|Sk| < 0.87$ and $|Ku| < 1.90$. There were no missing values.

Confirmatory factorial analysis was performed with AMOS (v. 24.0, SPSS Inc, Chicago, IL, USA) [48] an estimation method using maximum likelihood [49]. The goodness of fit was analysed by the indices of TLI (Tucker–Lewis Index—TLI; appropriate fit > 0.90) [38], CFI (Comparative fit index; good fit > 0.90) [50], CMIN/DF (good fit < 2) [51], and RMSEA (Root Mean Square Error of Approximation; good fit < 0.05) [46].

Descriptive statistics were calculated based on the original variables. Reliability was calculated by Cronbach's alpha [52]. Reliability coefficients higher than 0.70 were considered acceptable for convergence and reliability [50]. Generally, the value of 0.80 was taken as a good reliability indicator. The composite reliability and the average variance extracted for each factor were evaluated as described in [53].

2.6. Ethical Considerations

The present study adheres to the fundamental ethical principles for conducting human subject research. Informed consent was obtained from all participants, and permission was granted from the scale authors to validate the scale in the Portuguese context. The study was approved by the Research Ethics and Deontology Committee of the Faculty of Psychology and Educational Sciences of the University of Coimbra (CEDI)—CEDI/FPCEUC:58/6.

3. Results

Confirmatory Factor Analysis

A third-order CFA was performed—which represents a more aggregated level, where the second-order factors are grouped into one or more third-order factors—with the short version of COPSOQ III items, introducing a latent variable (RISKS) that explains Social Capital, Work Organization and Job Content, Demands at Work, Health and Well-being, Work–Individual Interface, and Interpersonal Relations and Leadership factors.

The third-order factor model of the COPSOQ (see Figure 2) revealed an acceptable fit: CMIN/545 = 2.88 ($p < 0.001$), RMSEA = 0.07, TLI = 0.82, and CFI = 0.83. No modification indices were used to improve the model. The graphical representation of the estimated factorial third-order model is shown in Figure 2. Standardised regression weights were significant for all paths, excluding Job insecurity ($\beta = -0.12$, $p = 0.057$).

Cronbach's alphas and Composite reliability coefficients (CRs) were good indicators of internal consistency, since they were higher than 0.70 [50] for all dimensions (the highest scores were registered for Work–life conflicts and Quantitative Demands). Average variance-extracted coefficients, as indicators of the amount of variance captured by each dimension, were also good, since AVE > 0.50. (see Table 2) [53]. The shared variance (R2) among dimensions indicates discriminant validity, given that, generally, the AVE in each dimension exceeded the R2 between dimensions [54].

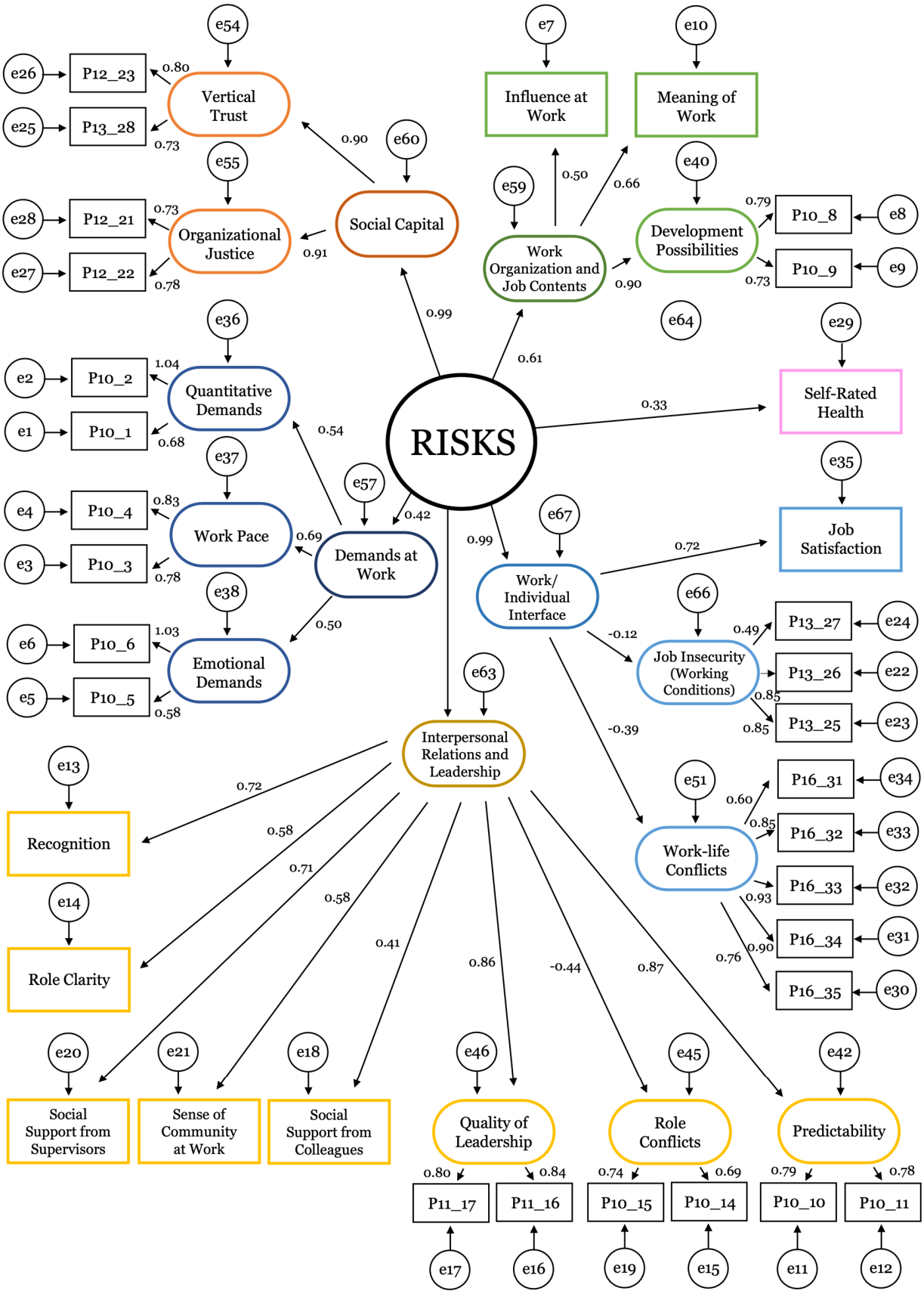

Figure 2. CFA for the third-order factor model of the COPSOQ III (short version): standardised regression weights and squared multiple correlations.

Table 2. Composite reliability (CR), average variance extracted (AVE), internal consistency (α), descriptives, and Pearson correlations * (r) of the COPSOQ III dimensions.

Domain	Dimension	α	CR	AVE	M	SD	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Social Capital	1. Vertical Trust	0.74	0.74	0.59	3.72	0.76	0.60	−0.14	−0.17	−0.14	0.20	0.30	0.34	0.58	0.44	0.60	−0.28	0.59	0.30	0.40	0.52	−0.04	0.57	−0.23	0.23
	2. Organizational Justice	0.73	0.73	0.57	3.50	0.83	-	−0.19	−0.24	−0.18	0.16	0.30	0.36	0.49	0.38	0.53	−0.29	0.64	0.40	0.59	0.56	−0.14	0.51	−0.32	0.20
Demands at Work	3. Quantitative Demands	0.83	0.87	0.79	2.62	0.94		-	0.32	0.23	0.17	0.01	0.15	−0.07	−0.13	−0.09	0.26	−0.19	−0.06	−0.06	−0.12	0.03	−0.14	0.42	−0.17
	4. Work Pace	0.79	0.79	0.65	3.46	0.76			-	0.27	0.06	−0.02	−0.10	−0.16	−0.07	−0.19	0.18	−0.18	−0.11	−0.10	−0.14	0.09	−0.11	0.38	−0.01
	5. Emotional Demands	0.75	0.81	0.70	3.27	0.91				-	0.26	0.09	0.19	−0.11	−0.06	−0.12	0.36	−0.16	−0.07	−0.15	−0.16	0.14	−0.11	0.45	−0.09
Work Organization and Job Contents	6. Influence at Work	-	-	-	3.55	0.98					-	0.32	0.42	0.29	0.27	0.27	0.06	0.07	0.07	0.15	0.12	−0.05	0.29	0.13	0.11
	7. Meaning of Work	-	-	-	3.97	0.88						-	0.48	0.44	0.26	0.31	0.00	0.27	0.20	0.20	0.26	−0.06	0.57	−0.07	0.12
	8. Development Possibilities	0.73	0.74	0.58	3.86	0.86							-	0.40	0.29	0.44	0.05	0.29	0.25	0.23	0.29	−0.06	0.45	0.01	0.13
	9. Recognition	-	-	-	3.41	1.09								-	0.42	0.59	−0.29	0.48	0.32	0.35	0.50	−0.14	0.56	−0.21	0.30
Interpersonal Relations and Leadership	10. Role Clarity	-	-	-	4.05	0.91									-	0.49	−0.16	0.46	0.27	0.37	0.33	−0.06	0.42	−0.15	0.16
	11. Predictability	0.75	0.76	0.63	3.44	0.87										-	−0.29	0.58	0.34	0.41	0.52	−0.09	0.51	−0.21	0.23
	12. Role Conflicts	0.68	0.68	0.51	2.85	0.78											-	−0.27	−0.10	−0.25	−0.17	0.18	−0.24	0.41	−0.27
	13. Quality of Leadership	0.81	0.81	0.67	3.62	0.90												-	0.39	0.42	0.65	−0.01	0.50	−0.24	0.19
	14. Social Support from colleagues	-	-	-	3.78	0.89													-	0.48	0.57	−0.14	0.27	−0.16	0.16
	15. Sense of Community at work	-	-	-	4.08	0.82														-	0.41	−0.16	0.34	−0.25	0.23
	16. Social Support from supervisors	-	-	-	3.71	1.07															-	−0.12	0.45	−0.24	0.16
Work/Individual Interface	17. Job insecurity (working conditions)	0.77	0.79	0.56	2.48	1.05																-	−0.08	0.26	−0.18
	18. Job satisfaction	-	-	-	3.47	0.90																	-	−0.25	0.34
	19. Work-life conflicts	0.90	0.91	0.67	2.74	0.84																		–	−0.27
Health and Well-Being	20. Self-rated Health	-	-	-	3.25	0.95																			-

* Pearson correlations > |0.13| are statistically significant, $p < 0.05$.

4. Discussion and Conclusions

In the last two decades, the world of work has undergone significant transformations. For example, we can mention globalisation, outsourcing and the the technological changes we are all witnessing. These changes have posed severe challenges to the health and safety of workers and have triggered an increase in their exposure to psychosocial risks [55]. In this sense, for example, globalisation has triggered several changes in the world of work, such as an increase in workload and work rhythms, job insecurity and uncertainty, only to cite a few examples [55–57], as well as the reduction in workers' autonomy. On the one hand, outsourcing also led to other changes, such as increased emotional demands, risks of violence and moral harassment [55]. On the other hand, technological changes have increased cognitive demands, frustration, work stress, anxiety and technostress [58]. But we do not stop there; the COVID-19 pandemic has triggered unparalleled changes in the world of work, threatening mental health and causing new psychosocial risks associated with teleworking to emerge, compromising the work–family/personal-life relationship, and the impoverishment of interpersonal relationships in addition to the work organisation itself [4,5,55,59,60]. More recently, wars between countries have shaken labour relations, particularly international and national ones, generating precarious labour relations, job insecurity, unemployment, injustice, and inequality, contributing to the increase in psychosocial risk factors and public health [61]. Based on what we have just mentioned, it is clear that assessing the risk factors mentioned with reliable and valid intervention measures is increasingly pertinent.

This study evaluated aspects of the cultural adaptation and psychometric validation of the short version of COPSOQ III for a Portuguese sample using a third-order confirmatory factor analysis. The COPSOQ III short version is a valuable tool for organisations that wish to understand and improve the psychosocial work environment. Its use can lead to a healthier workplace, increasing employee satisfaction and productivity. To our knowledge, among the countries where the COPSOQ III has been validated (e.g., Spain, France, Sweden), Portugal is the first to present a validation, albeit preliminary, of its short version.

Our model presented an acceptable fit, considering the global model fit indices (χ^2/df; RMSEA), with values meeting the literature recommendations [50], suggesting that the model is parsimonious and has a low mean discrepancy per degree of freedom. This finding implies that our model effectively captures the underlying structure of the data with a minimal number of parameters, enhancing its simplicity and interpretability. The χ^2/df ratio is considered a robust metric, as it normalises the chi-square value by the degrees of freedom, providing a more stable indicator of model fit across different sample sizes. The sensitivity of the chi-square statistic to large samples is a well documented issue [50]. The low RMSEA value further supports the adequacy of the model, indicating that the error of approximation is within an acceptable range.

According to the performed CFA, the domains and dimensions of the Portuguese Short Version of COPSOQ III are well reflected through the third-order latent variable psychosocial risks. The Social Capital and Work Individual Interface dimensions are assumed to be the most representative of the construct under study, followed by Interpersonal Relations and Leadership. Psychosocial risks are reflected in the perception of Vertical Trust and Organisational Justice (Social Capital). Halbusi et al. [62] had already found a significant correlation between justice and trust in the organisation, being an indicator of organisational justice analysed through trust and ethical leadership. They are also reflected in the degree of Job Satisfaction and to a lesser extent in Work–life conflicts (Work–Individual Interface). Analysing the impact of job satisfaction on job-relevant outcomes, Judge et al. [63] found a significant role for performance and effectiveness, organisational citizenship behaviour, counterproductive work behaviour, and withdrawal. In the COPSOQ III model, Recognition, Role Clarity, Social Support from Supervisors, Sense of Community at Work, Social Support from Colleagues, Quality of Leadership, Role conflict (negative), and Predictability reflect Interpersonal Relations and Leadership. Indeed, among other dimensions related to interpersonal relationships in the workplace, the literature emphasises the need to belong

as an important dimension for interpersonal relationships at work [64]. In our factorial COPSOQ III model, Work organisations and Job contents and Demands at work are also reflected by psychosocial Risks perception, although with a smaller effect size, the same occurring for Demands at work and Self-rated health. For instance, job demands and job resources are usually found in the literature as predictors of meaning at work (e.g., [65]), having an impact on psychosocial risks. Health as a dimension of a psychosocial risk has also been deeply investigated in the literature [66], including physical and mental health.

The results—internal consistency (Cronbach's alphas and CR values), convergent validity (AVE values), and discriminant validity (AVE values exceeding the shared variances (R^2)—collectively indicate that the measurement model is both reliable and valid, offering confidence in using the domains of RISKS (Social Capital, Work Organization and job Content, Demands at Work, Health and Well-being, Work–Individual Interface, and Interpersonal Relations and Leadership) for further analysis and research.

Regarding the correlations between the dimensions of the psychosocial risk scale, in general, they align with the expectations in the literature [67–69]. Vertical trust and organisational justice (both dimensions of the social capital domain) are fundamental pillars that influence not only the daily functioning of the organisation but also the psychosocial well-being of its members. Their moderate/high correlations with other dimensions of psychosocial risks ($r > 0.50$) reflect the critical importance of these elements in creating a healthy, productive, and harmonious work environment [70,71]. The dimension of work–life conflict is one that exhibits significantly higher negative correlations with other dimensions of psychosocial risks. This suggests that work–life conflict not only negatively affects employees' well-being, but also can adversely impact organisational effectiveness as a whole [72,73]. Proper management of these conflicts is essential to cultivate a more positive and productive work environment.

Despite these positive indicators, we acknowledge some limitations of our model. Notably, indices such as CFI and TLI did not reach the ideal values typically indicative of excellent model fit. The CFI and TLI are comparative fit indices that assess the model fit relative to a null model, and their lower values suggest that the model could be improved. It is important to recognise that these indices can be significantly influenced by the complexity of the model and the lower number of observable variables within each dimension. Complex models with many parameters often result in lower CFI and TLI values, despite a reasonable model fit indicated by other metrics. This phenomenon underscores the necessity of evaluating multiple fit indices rather than relying on a single measure. Moreover, by improving the model, it will also be possible to resolve the issue of some inflated coefficients.

The practical implications of this study are extremely significant for organisations, as they enable a quick and efficient diagnosis of psychosocial risks, allowing for the identification of problematic areas in the workplace. The COPSOQ III—short version, reduces the time required for employees to respond to the assessments. Conceptually, this instrument, widely validated across various contexts and countries, reinforces its validity and reliability as an effective measure of psychosocial risks. The COPSOQ III—short version, highlights the holistic interaction between physical, social, and psychological risk factors, demonstrating how these elements influence employees' well-being and performance.

Future research should explore additional model adjustments, such as incorporating more sophisticated structures or refining the measurement model. It would also be beneficial to consider including moderating variables, which could provide deeper insights into the relationships among the variables and help identify potential interactions that the current model may not fully capture. It is also recommended to expand this research into other sectors, considering, for example, emerging technologies, in order to further deepen the understanding of psychosocial risks.

In conclusion, through the cultural adaptation and preliminary psychometric validation of the short version of COPSOQ III for a Portuguese sample, a tool for assessing psychosocial risks can be broadcast, enabling the achievement of more sustainable working

environments. Thus, with sustainable and preventive assessments and measurements, the operator's health and well-being are spotlighted.

As Espassandim [74] stated, regarding the medium version of COPSOQ III, the assessment of risk factors using COPSOQ III, the short version, represents an evolution of COPSOQ II, which seeks to respond to current social changes and challenges, while at the same time incorporating the latest workplace values, working time issues, insecurity about working conditions and their quality, and the dominance of social capital, recently introduced in this context.

Author Contributions: Conceptualization, T.M.L., A.P. and C.C.; methodology, L.S.M. and A.P.; software, L.S.M. and A.P.; validation, A.P., C.C., T.M.L. and L.S.M.; formal analysis, A.P., C.C., J.A. and T.M.L.; investigation, A.P., C.C. and L.S.M.; resources, T.M.L., A.P. and C.C.; data curation, L.S.M. and A.P.; writing—original draft preparation, I.M.; writing—review and editing, A.P., C.C., I.M. and T.M.L.; visualization, J.A.; supervision, T.M.L.; project administration, T.M.L., A.P. and C.C. All authors have read and agreed to the published version of the manuscript.

Funding: The authors would like to express their gratitude to FCT—Fundação para a Ciência e a Tecnologia, I.P. and Centre for Mechanical and Aerospace Science and Technologies (C-MAST) for their support in the form of funding, under the project UIDB/00151/2020 (https://doi.org/10.54499/UIDB/00151/2020; https://doi.org/10.54499/UIDP/00151/2020, accessed on 15 January 2024) and Centre for Business and Economics Research. The authors would like to express their gratitude to FCT—Fundação para a Ciência e a Tecnologia, I.P. and Centre for Business and Economics Research (CeBER) for their support in the form of funding through project UIDB/05037/2020 (https://doi.org/10.54499/UIDB/05037/2020, accessed on 15 January 2024).

Institutional Review Board Statement: The study was conducted in accordance with the Declaration of Helsinki, and approved by the Ethics Committee of the Faculty of Psychology and Educational Sciences of the University of Coimbra (protocol code CEDI/FPCEUC:58/6) for studies involving humans.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: Data are contained within the article.

Conflicts of Interest: The authors declare no conflicts of interest.

References

1. Kristensen, T.S.; Hannerz, H.; Hogh, A.; Borg, V. The Copenhagen psychosocial Questionnaire: A tool for the assessment and improvement of the psychosocial work environment. *Scand. J. Work Environ. Health* **2005**, *31*, 438–449. [CrossRef]
2. Schulte, P.A.; Streit, J.M.K.; Sheriff, F.; Delclos, G.; Felknor, S.A.; Tamers, S.L.; Fendinger, S.; Grosch, J.; Sala, R. Potential scenarios and hazards in the work of the future: A systematic review of the peer-reviewed and gray literatures. *Ann. Work Expo. Health* **2020**, *64*, 786–816. [CrossRef]
3. Hassard, J.; Teoh, K.; Thomson, L.; Blake, H. Understanding the cost of mental health at work: An integrative framework. In *The SAGE Handbook of Organizational Wellbeing*; Wall, T., Cooper, C.L., Brough, P., Eds.; SAGE Publications Ltd.: Thousand Oaks, CA, USA, 2021; pp. 9–25.
4. Chirico, F.; Giorgi, G.; Magnavita, N. Addressing all the psychosocial risk factors in the workplace requires a comprehensive and interdisciplinary strategy and specific tools. *J. Health Soc. Sci.* **2023**, *8*, 170–174. [CrossRef]
5. Nowrouzi-Kia, B.; Dong, J.; Gohar, B.; Hoad, M. Examining the Mental Health, Wellbeing, Work Participation and Engagement of Medical Laboratory Professionals in Ontario, Canada: An Exploratory Study. *Front. Public Health* **2022**, *10*, 876883. [CrossRef]
6. International Labour Organization. *Emerging Risks and New Patterns of Prevention in a Changing World of Work*; International Labour Office: Geneva, Switzerland, 2010; ISBN 978-92-2-123343-5. Available online: https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@ed_protect/@protrav/@safework/documents/publication/wcms_123653.pdf (accessed on 20 April 2024).
7. Burr, H.; Lange, S.; Freyer, M.; Formazin, M.; Rose, U.; Nielsen, M.L.; Conway, P.M. Physical and psychosocial working conditions as predictors of 5-year changes in work ability among 2078 employees in Germany. *Int. Arch. Occup. Environ. Health* **2022**, *95*, 153–168. [CrossRef] [PubMed]
8. Deady, M.; Arena, A.; Sanatkar, S.; Gayed, A.; Manohar, N.; Petrie, K.; Harvey, S.B. Psychological workplace injury and incapacity: A call for action. *J. Ind. Relat.* **2024**, 00221856241258561. [CrossRef]
9. Jain, A.; Torres, L.D.; Teoh, K.; Leka, S. The impact of national legislation on psychosocial risks on organizational action plans, psychosocial working conditions, and employee work-related stress in Europe. *Soc. Sci. Med.* **2022**, *302*, 114987. [CrossRef]

10. Vivian, J.C.; Neto, H.V. A relação entre condições psicossociais de trabalho e rotatividade voluntária de trabalhadores. *Int. J. Work. Cond.* **2020**, *20*, 51–70.
11. Mateos-González, L.; Rodríguez-Suárez, J.; Llosa, J.A.; Agulló-Tomás, E.; Herrero, J. Influence of Job Insecurity on Musculoskeletal Disorders: A Mediation Model with Nursing Aides. *Int. J. Environ. Res. Public Health* **2023**, *20*, 1586. [CrossRef]
12. Ordem dos Psicólogos Portugueses. *Prosperidade e Sustentabilidade das Organizações—Relatório do Custo do Stresse e dos Problemas de Saúde Psicológica no Trabalho, em Portugal*; Ordem dos Psicólogos Portugueses: Lisboa, Portugal, 2023.
13. Dias, L.; Vergara, L. O uso do COPSOQ como ferramenta auxiliar de avaliação em ergonomia. In Proceedings of the IX Congresso Brasileiro de Engenharia de Produção, Ponta Grossa, Brazil, 4–6 December 2019. Available online: http://aprepro.org.br/conbrepro/2019/anais/arquivos/09302019_200933_5d928ba597c59.pdf (accessed on 15 January 2024).
14. EU-OSHA. *Managing Psychosocial Risks in European Micro and Small Enterprises: Qualitative Evidence from the Third European Survey of Enterprises on New and Emerging Risks*; European Agency for Safety and Health at Work: Bilbao, Spain, 2022. [CrossRef]
15. Sahan, C.; Baydur, H.; Demiral, Y. A novel version of Copenhagen Psychosocial Questionnaiere-3: Turkish validation study. *Arch. Environ. Occup. Health* **2019**, *74*, 297–309. [CrossRef]
16. Pejtersen, J.H.; Kristensen, T.S.; Borg, V.; Bjorner, J.B. The second version of the Copenhagen Psychosocial Questionnaire. *Scand. J. Public Health* **2010**, *38* (Suppl. S3), 8–24. [CrossRef] [PubMed]
17. Kristensen, T.S. A questionnaire is more than a questionnaire. *Scand. J. Public Health* **2010**, *38* (Suppl. S3), 149–155. [CrossRef]
18. Lucero-Perez, M.R.; Sabastizagal, I.; Astete-Cornejo, J.; Burgos, M.A.; Villarreal-Zegarra, D.; Moncada, S. Validation of the medium and short version of CENSOPAS-COPSOQ: A psychometric study in the Peruvian population. *BMC Public Health* **2022**, *22*, 910. [CrossRef]
19. *ISO 45003:2021*; Occupational Health and Safety Management-Psychological Health and Safety at Work-Guidelines for Managing Psychosocial Risks. International Organization for Standardization: Geneva, Switzerland, 2021. Available online: https://www.iso.org/standard/64283.html (accessed on 15 January 2024).
20. *ISO 45001:2018*; Occupational Health and Safety Management Systems-Requirements with Guidance for Use. International Organization for Standardization: Geneva, Switzerland, 2018. Available online: https://www.iso.org/standard/63787.html#amendment (accessed on 15 January 2024).
21. *ISO 9001:2015*; Quality Management Systems-Requirements. International Organization for Standardization: Geneva, Switzerland, 2015. Available online: https://www.iso.org/standard/62085.html#amendment (accessed on 15 January 2024).
22. Fernandes, C.; Pereira, A. Implementing psychosocial risk management in industrial SMEs: What does practice tells us? *Occup. Environ. Med.* **2021**, *73*, A200–A201. [CrossRef]
23. Berthelsen, H.; Hakanen, J.; Kristensen, T.S.; Lönnblad, A.; Westerlund, H. A qualitative study on the content validity of the social capital scales in the Copenhagen Psychosocial Questionnaire (COPSOQ II). *Scand. J. Work Organ. Psychol.* **2016**, *1*, 1–13. [CrossRef]
24. Burr, H.; Berthelsen, H.; Moncada, S.; Nübling, M.; Dupret, E.; Demiral, Y.; Oudyk, J.; Kristensen, T.S.; Llorens, C.; Navarro, A.; et al. The third version of the Copenhagen Psychosocial Questionnaire. *Saf. Health Work* **2019**, *10*, 482–503. [CrossRef] [PubMed]
25. Ose, S.O.; Lohmann-Lafrenz, S.; Bernstrøm, V.H.; Berthelsen, H.; Marchand, G.H. The Norwegian version of the Copenhagen Psychosocial Questionnaire (COPSOQ III): Initial validation study using a national sample of registered nurses. *PLoS ONE* **2023**, *18*, e0289739. [CrossRef] [PubMed]
26. Fernandes, C.; Pereira, A. Exposure to psychosocial risk factors in the context of work: A systematic review. *Rev. Saúde Pública* **2016**, *50*, 24. [CrossRef]
27. Wagner, A.; Nübling, M.; Hammer, A.; Manser, T.; Rieger, M.A. Comparing perceived psychosocial working conditions of nurses and physicians in two university hospitals in Germany with other German professionals—Feasibility of scale conversion between two versions of the German Copenhagen Psychosocial Questionnaire (COPSOQ). *J. Occup. Med. Toxicol.* **2020**, *15*, 3–18. [CrossRef]
28. Gomes, A.; Bem-Haja, P.; Alberty, A.; Brito-Costa, S.; Fernández, M.I.R.; Silva, C.; Almeida, H. Capacidade para o trabalho e fatores psicossociais de saúde mental: Uma amostra de profissionais de saúde portugueses. *Int. J. Dev. Educ. Psychol.—INFAD Rev. Psicol.* **2015**, *2*, 95–104. [CrossRef]
29. Nübling, M.; Vomstein, M.; Schmidt, S.G.; Gregersen, S.; Dulon, M.; Nienhaus, A. Psychosocial work load and stress in the geriatric care. *BMC Public Health* **2010**, *10*, 428. [CrossRef]
30. Cotrim, T.; Carvalhais, J.; Neto, C.; Teles, J.; Noriega, P.; Rebelo, F. Determinants of sleepiness at work among railway control workers. *Appl. Ergon.* **2017**, *58*, 293–300. [CrossRef] [PubMed]
31. Collins, J.D.; O'Sullivan, L.W. Musculoskeletal disorder prevalence and psychosocial risk exposures by age and gender in a cohort of office-based employees in two academic institutions. *Int. J. Ind. Ergon.* **2015**, *46*, 85–97. [CrossRef]
32. Alvarado, R.; Pérez-Franco, J.; Saavedra, N.; Fuentealba, C.; Alarcón, A.; Marchetti, N.; Aranda, W. Validación de un cuestionario para evaluar riesgos psicosociales en el ambiente laboral en Chile. *Rev. Média De Chile* **2012**, *140*, 1154–1163. [CrossRef] [PubMed]
33. Pournik, O.; Ghalichi, L.; TehraniYazdi, A.; Tabatabaee, S.M.; Ghaffari, M.; Vingard, E. Measuring psychosocial exposures: Validation of the persian of the Copenhagen Psychosocial Questionnaire (COPSOQ). *Med. J. Islam. Repub. Iran* **2015**, *29*, 221. [PubMed]
34. Fernández-Prada, M.; González-Cabrera, J.; Iribar-Ibabe, C.; Peinado, J.M. Riesgos psicosociales y estrés como predictores del burnout en médicos internos residentes en el Servicio de Urgencias. *Gac. Médica Mex.* **2017**, *153*, 450–458. [CrossRef]
35. Rosário, S.; Azevedo, L.F.; Fonseca, J.A.; Nienhaus, A.; Nübling, M.; Costa, J.T. The portuguese long version of the Copenhagen Psychosocial Questionnaire II (COPSOQ II)—A validation study. *J. Occup. Med. Toxicol.* **2017**, *12*, 24. [CrossRef]

36. Breedt, J.E.; Marais, B.; Patricios, J. The psychosocial work conditions and mental well-being of independent school heads in South Africa. *SA J. Hum. Resour. Manag.* **2023**, *21*, a2203. [CrossRef]
37. Moncada, S.; Utzet, M.; Molinero, E.; Llorens, C.; Moreno, N.; Galtés, A.; Navarro, A. The Copenhagen Psychosocial Questionnaire II (COPSOQ II) in Spain—A tool for psychosocial risk assessment at the workplace. *Am. J. Ind. Med.* **2013**, *57*, 97–107. [CrossRef]
38. Cotrim, T.; Bem-Haja, P.; Amaral, V.; Pereira, A.; Silva, C.F. Evolução do questionário Psicossocial de Copenhaga: Do COPSOQ II para o COPSOQ III. *Int. J. Work. Cond.* **2017**, *14*, 105–115.
39. Nübling, M.; Burr, H.; Moncada, S.; Kristensen, T.S. COPSOQ international network: Co-operation for research and assessment of psychosocial factors at work. *Public Health Forum* **2014**, *22*, 18–19. [CrossRef]
40. Lluís, S.M.; Serrano, C.L.; Nicás, S.S.; Soler, D.M.; Giné, A.N. La tercera versión de COPSOQ-istas21. Un instrumento internacional actualizado para la prevención de riesgos psicosociales en el trabajo. *Rev. Española Salud Pública* **2021**, *95*, 1–16.
41. Hill, M.; Hill, A. *Investigação por Questionário*, 2nd ed.; Edições Sílabo: Lisboa, Portugal, 2008.
42. Tsang, S.; Royse, C.F.; Terkawi, A.S. Guidelines for developing, translating, and validating a questionnaire in perioperative and pain medicine. *Saudi J. Anaesth.* **2017**, *11* (Suppl. S1), S80–S89. [CrossRef]
43. Jääskeläinen, R. Think-aloud protocol studies into translation: An annotated bibliography. *Target. Int. J. Transl. Stud.* **2002**, *14*, 107–136. [CrossRef]
44. Byrne, B.M. *Structural Equation Modeling with AMOS: Basic Concepts, Applications and Programming*, 2nd ed.; Lawrence Erlbaum: London, UK, 2010.
45. Costello, A.B.; Osborne, J.W. Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Pract. Assess. Res. Eval.* **2005**, *10*, 7.
46. Kline, R. *Principles and Practice of Structural Equation Modeling*, 3rd ed.; The Guilford Press: New York, NY, USA, 2011.
47. Tabachnick, B.G.; Fidell, L.S. *Using Multivariate Statistics*, 6th ed.; Pearson Education: Hoboken, NJ, USA, 2013.
48. Arbuckle, J.L. *Amos 22 User's Guide*; SPSS: Chicago, IL, USA, 2013.
49. Jöreskog, K.G.; Sörbom, D. *LISREL 8.7 for Windows*; Computer Software; Scientific Software International, Inc.: Lincolnwood, IL, USA, 2004.
50. Hair, J.F.; Anderson, R.E.; Tatham, R.L.; Black, W.C. *Multivariate Data Analysis*, 7th ed.; Pearson Prentice-Hall: Hoboken, NJ, USA, 2008.
51. Schumacker, R.E.; Lomax, R.G. *A Beginner's Guide to Structural Equation Modeling*; Routledge Academic: New York, NY, USA, 2012.
52. Nunnally, J.C. *Psychometric Theory*; McGraw-Hill: New York, NY, USA, 1978.
53. Fornell, C.; Larcker, D.F. Evaluating structural equation models with unobservable variables and measurement error. *J. Mark. Res.* **1981**, *18*, 39–50. [CrossRef]
54. Bagozzi, R.; Yi, Y. On the evaluation of structural equation models. *J. Acad. Mark. Sci.* **1988**, *16*, 74–94. [CrossRef]
55. Antunes, S. Riscos Psicossociais: Uma área de intervenção psicológica. In *Avaliar, Intervir e Prevenir os Riscos Psicossociais: Práticas e Recomendações*; Antunes, S., Pereira, A., Eds.; Ordem dos Psicólogos Portugueses: Lisboa, Portugal, 2023; pp. 25–62, ISBN 978-989-53170-8-0.
56. Richter, A.; Näswall, K. Job insecurity and trust: Uncovering a mechanism linking job insecurity to well-being. *Work Stress* **2019**, *33*, 22–40. [CrossRef]
57. Siegrist, J.; Wahrendorf, M. (Eds.) *Work Stress and Health in a Globalized Economy: The Model of Effort-Reward Imbalance*; Springer International Publishing/Springer Nature: Berlin/Heidelberg, Germany, 2016. [CrossRef]
58. EU-OSHA. *Management of Psychosocial Risks in European Workplaces: Evidence from the Second European Survey of Enterprises on New and Emerging Risks (ESENER-2)*; European Agency for Safety and Health at Work: Bilbao, Spain, 2018. [CrossRef]
59. Salas-Nicás, S.; Moncada, S.; Llorens, C.; Navarro, A. Working conditions and health in Spain during COVID-19 pandemic: Minding the gap. *Saf. Sci.* **2021**, *134*, 105064. [CrossRef]
60. Smallwood, N.; Willis, K. Mental health among healthcare workers during the COVID-19 pandemic. *Respirology* **2021**, *26*, 1016–1017. [CrossRef]
61. Kurapov, A.; Kalaitzaki, A.; Keller, V.; Danyliuk, I.; Kowatsch, T. The mental health impact of the ongoing Russian-Ukrainian war 6 months after the Russian invasion of Ukraine. *Front. Psychiatry* **2023**, *14*, 1134780. [CrossRef] [PubMed]
62. Al Halbusi, H.; Tehseen, S.; Hamid, F.A.H.; Afthanorhan, A. A Study of Organizational Justice on the Trust in Organization under the Mediating Role of Ethical Leadership. *Bus. Ethics Leadersh.* **2018**, *2*, 89–98. [CrossRef]
63. Judge, T.A.; Zhang, S.C.; Glerum, D.R. Job satisfaction. In *Essentials of Job Attitudes and Other Workplace Psychological Constructs*; Sessa, V.I., Bowling, N.A., Eds.; Routledge: New York, NY, USA, 2020; pp. 207–241. [CrossRef]
64. Reich, T.C.; Hershcovis, M.S. Interpersonal relationships at work. In *APA Handbook of Industrial and Organizational Psychology*; Zedeck, S., Ed.; Maintaining, Expanding, and Contracting the Organization; American Psychological Association: Washington, DC, USA, 2011; Volume 3, pp. 223–248. [CrossRef]
65. Clausen, T.; Borg, V. Job demands, job resources and meaning at work. *J. Manag. Psychol.* **2011**, *26*, 665–681. [CrossRef]
66. Cobb, E.P. *Managing Psychosocial Hazards and Work-Related Stress in Today's Work Environment: International Insights for U.S. Organizations*; Routledge: New York, NY, USA, 2022. [CrossRef]
67. Geibel, H.V.; Otto, K. Commitment is the key: A moderated mediation model linking leaders' resources, work engagement, and transformational leadership behavior. *Psychol. Rep.* **2022**, *126*, 1977–2002. [CrossRef] [PubMed]

68. Hansen, P.W.; Schlünssen, V.; Fonager, K.; Bønløkke, J.H.; Hansen, C.D.; Bøggild, H. Association of perceived work pace and physical work demands with occupational accidents: A cross-sectional study of ageing male construction workers in Denmark. *BMC Public Health* **2022**, *22*, 18. [CrossRef]
69. Lundqvist, D.; Reineholm, C.; Ståhl, C.; Wallo, A. The impact of leadership on employee well-being: On-site compared to working from home. *BMC Public Health* **2022**, *22*, 2154. [CrossRef]
70. Berthelsen, H.; Owen, M.; Westerlund, H. Does workplace social capital predict care quality through job satisfaction and stress at the clinic? A prospective study. *BMC Public Health* **2021**, *21*, 1320. [CrossRef] [PubMed]
71. Clark, A.; Prætorius, T.; Török, E.; Hvidtfeldt, U.A.; Hasle, P.; Rod, N.H. The impact of work-place social capital in hospitals on patient-reported quality of care: A cohort study of 5205 employees and 23,872 patients in Denmark. *BMC Health Serv. Res.* **2021**, *21*, 534. [CrossRef]
72. Göbel, J.; Schmidt, M.; Seifried-Dübon, T.; Linden, K.; Degen, L.; Rind, E.; Eilerts, A.-L.; Pieper, C.; Grot, M.; Werners, B.; et al. Higher Work-Privacy Conflict and Lower Job Satisfaction in GP Leaders and Practice Assistants Working Full-Time Compared to Part-Time: Results of the IMPROVE job Study. *Int. J. Environ. Res. Public Health* **2022**, *19*, 2618. [CrossRef]
73. Han, S.; Kwak, S. The effect of sleep disturbance on the association between work-family conflict and burnout in nurses: A cross-sectional study from South Korea. *BMC Nurs.* **2022**, *21*, 354. [CrossRef]
74. Espassandim, T. SPMS: Navegando pelos desafios da transformação digital na saúde e riscos psicossociais. In *Avaliar, Intervir e Prevenir os Riscos Psicossociais: Práticas e Recomendações*; Antunes, S., Pereira, A., Eds.; Ordem dos Psicólogos Portugueses: Lisboa, Portugal, 2023; pp. 205–227, ISBN 978-989-53170-8-0.