THE EVALUATION OF PSYCHOSOCIAL RISKS: AN EMERGING ISSUE? AND ITS PREVENTION... A POSTPONED ISSUE?

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ABSTRACT

Psychosocial risks, its diagnosis and better understanding, have, in recent years, occupied a central place in the societal debates, setting new demanding to the ones involved in the field of occupational safety and health. In line with this, the concerns of evaluation and diagnosis of psychosocial risk factors boosted the development of several questionnaires, their widespread dissemination, and even their "exportation", not always sensitive to the specificities of local realities. The purpose of this paper is to discuss the methods of "diagnosis" and the type of prevention practices, taking into account the comparison of two surveys in this area and the theoretical and epistemological approaches that underlie them: (i) the Copenhagen Psychosocial Questionnaire (COPSOQ) and (ii) the Health and Work Survey (INSAT). The results reinforce the importance of a contextualized approach in work situations, as well as in the perspective of the workers themselves about the risks to which they are exposed to - beyond what is, or not, significant from the statistical point of view, or what can be normatively defined as an "acceptable risk".

Keywords: Employment and Working conditions; Risk Assessment; Diagnosis; Intervention.

JEL Classification: J81

1. INTRODUCTION

Psychosocial risk factors, its diagnosis and better understanding have, in recent years, occupied a central place in the societal debates, setting new demanding to the ones who intervene in the field of occupational safety and health.

Apparently, the sub-categorization of these work-related risks as of "psychosocial" nature seems to justify the fact that psychologists are increasingly called upon to respond to such requests. These requests often reflect an expectation that the intervention will contribute to help workers, victims of such risks, to take ownership of other strategies, suitable of allowing them to react more positively to the "work demands".

So, in this type of interventions, potentially "psychologizing", to which we critically position ourselves, an intervention at the individual behaviour level is favoured, leaving aside the collective difficulties (Loriol, 2005).

It is the concrete work activity and the options on work organization that should assume the centrality in the analysis of these risks - which, actually, interact with other risks, making them, in the majority of the cases, more worrisome. Indeed, it is no coincidence that the visibility given to psychosocial risks arises in an historical context marked by the intensification of work rhythms and by a certain naturalization of physical and emotional

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exhaustion (closely associated with increasingly precarious labour relations), together with a professional activity whose complexity has also increased significantly.

The concerns of assessment and diagnosis of psychosocial risk factors boosted the development of several questionnaires, which reflects the idea that if work-related risks are better known, work contexts can be managed more effectively and hence improvements in workers' health and wellbeing can be achieved. To better evaluate the impact of working conditions on workers' health and wellbeing, it is important to analyse a set of different variables such as work characteristics and conditions, health and safety, work organisation, opportunities for the development of work, and balance between work and life outside work, as mentioned by Eurofound (2014; 2015; 2016).

Beyond the issue of "diagnosis", the aim of this study is to discuss the type of assessment and prevention practices that have been privileged in this area, particularly questioning the limits of a type of usage of statistics and individual approaches.

2. MATERIALS AND METHODS

The analysis here pursued is sustained on the comparison of two reference instruments in this area and the theoretical and epistemological approaches underlying them. The first instrument is the Copenhagen Psychosocial Questionnaire (COPSOQ) and, the second one, is the Health and Work Questionnaire (INSAT: Inquérito Saúde e Trabalho).

The COPSOQ was developed and validated by Kristensen and cols. (Danish National Institute of Occupational Health), in 2005 (Kristensen, Hannerz, Hogh & Borg, 2005) and, recently, was revised (COPSOQ II) (Petjersen, Kristensen, Borg & Bjorner, 2010). It is a questionnaire broadly used in the assessment of psychosocial risks, which integrates in its conception the influence of dominant psycho-sociological theories, among which: the work characteristics model, the Michigan organizational stress model, the demand-control-support model, the sociotechnical approach and the effort-reward theory (Kristensen, Hannerz, Hogh & Borg, 2005; Petjersen, Kristensen, Borg & Bjorner, 2010).

The Portuguese translation and adaptation of COPSOQ (Silva, Amaral, Pereira, Bem-Haja, Pereira, Rodrigues, Cotrim, Silvério & Nossa, 2011), and its three versions are available: the long version for researchers (41 scales and 128 questions); the medium version for occupational health professionals (28 scales and 87 questions); and the short version, used in work places (23 scales and 40 questions).

The psychosocial dimensions are analysed through questions (using Likert scales) reported to the evaluation of: cognitive and emotional demands, rewards, interpersonal conflicts, stress and harassment in the workplace. The order of the questions follows this structure: assessment of *health and wellbeing* items; *relationship with the labour market*; *employment conditions*; *work and private/family life*; *psychosocial work environment*; *workplace as a whole*; *conflicts and offensive behaviour*.

The INSAT (Barros-Duarte, Cunha & Lacomblez, 2007; 2010) main aim is to analyse the relation between working conditions and health and wellbeing. It's a questionnaire developed in Portugal, and conceived from the contribution of European surveys, such as the SUMER, the EVREST, and European Working Conditions Survey conducted by Eurofound since 1990.

The first published version of INSAT was presented in 2007, reviewed in 2010, and consolidated in 2013, through several studies developed and published in different business sectors in Portugal such as: a) Health and Social Support; (b) Education; (c) Wholesale and Retail; (d) Manufacturing Industry; (e) Public administration and defence, and (f) Other service activities (e.g., Barros, Carnide, Cunha, Santos & Silva, 2015; Silva, Barros, Cunha,

Carnide & Santos, 2016; Norton, Costa, Teixeira, Azevedo, Roma-Torres, Amaro & Cunha, 2017).

Its first version appeared in 2007 (Barros-Duarte, Cunha & Lacomblez, 2007) and it was updated in 2010 (Barros-Duarte & Cunha, 2010), and again in 2013 (Barros-Duarte & Cunha, 2014), with the contribution of the experience acquired through its application in different sectors of activity, in Portugal (Barros, Carnide, Cunha, Santos & Silva, 2015). In terms of psychometric properties, INSAT has been found to have good internal consistency, in a Rasch PCM analysis, with a reliability coefficient > 0.8 (Barros, Cunha, Baylina, Oliveira & Rocha, 2017).

From the standpoint of its structure, INSAT follows a coherent and integrative logic – from work to the effects of work in health and wellbeing (in a total of 145 items) – allowing the worker, in the auto-filling of the questionnaire (in most items using Likert scales), a reflection and a progressive awareness of the consequences of work in health and wellbeing. It focuses on the interaction of physical, cognitive, organizational and psychosocial dimensions of work activity, as well as on its effects on physical health and social and psychological wellbeing.

It is organized into seven axes: The *work*; *work conditions and characteristics* (Environment and physical constraints; Organizational and relational constraints; Work characteristics); *Life conditions outside work*; *Training and work*; *Health and work*; *My health and my work*; *My health and wellbeing*.

To discuss the potentialities and singularities of these two reference instruments in the assessment of psychosocial risk factors, we developed a comparative analysis from three case studies in the context of industrial sectors: furniture, cork and automobile industries. The sample was composed of 215 Portuguese workers from small and medium companies (Almeida & Peñalver, 2013), located in north and center regions: 116 from the furniture industry, which answered to COPSOQ; and 99 workers which answered to INSAT questionnaire – 43 of these from the cork industry, and 56 from the automobile industry.

3. RESULTS AND DISCUSSION

3.1 Study 1: contributions of risk factors evaluation with COPSOQ in the furniture industry

The results of the COPSOQ questionnaire are frequently expressed under the shape of mean values, being its discussion instigated from the comparison with "averages of reference" (always followed by an index of dispersion), as defined by its theoretical framework.

In tables 1 and 2, are presented the results of the application of COPSOQ in the furniture industry: the comparison of the means obtained in this study (second column) and the "average of reference" (last column) corresponds, according to that theoretical framework, to the privileged standpoint that can be assumed in the interpretation of the results. High values are considered "positive" and "healthy" (Kristensen, Hannerz, Hogh & Borg, 2005; Petjersen, Kristensen, Borg & Bjorner, 2010), and low values considered as "threateners". However, there are a considerable number of exceptions as portrayed by table 1.

Table 1. COPSOQ results: dimensions related to individual factors

Dimensions	Mean	Standard Deviation	Minimum	Maximum	Average of reference
General Health	44,82	23,19	0	100	66,0
Sleeping troubles	38,45	20,99	0	100	21,3
Stress	38,64	19,77	0	87,50	26,7
Burnout	45,65	20,62	0	100	34,1
Depressive symptoms	28,31	15,51	0	75	21,0
Somatic stress	28,55	19,59	0	94	17,8
Cognitive stress	31,63	18,93	0	75	17,8
Self-efficacy	68,99	19,09	14	100	67,5

Source: Own Elaboration

Observing the results in table 1, it can be said, for example, that these workers evidence a general health state worse than the reference value, and a self-efficacy perception higher than the normative value.

Well, these are not conflicting results, the work constraints and their effects are not necessarily correlated with the perception of efficacy or with the accomplishment of a job "well done" (Clot, 2008). The workers do not remain passive when facing these hazards; on the contrary, they act, both individually and in group, upon the constraints imposed by their work situation. It partly reveals the insufficiency of statistical indicators for the analysis of psychosocial risk factors, unless they are complemented with qualitative data that enhance the specificity of the real work (Gollac & Bodier, 2011).

Table 2. COPSOQ results: dimensions related to work environment

Dimensions	Mean	Standard Deviation	Minimum	Maximum	Average of reference
Quantitative Demands	30,66	15,19	0	75	40,2
Cognitive Demands	45,26	21,36	0	99	63,9
Emotional Demands	42,94	16,06	0	88	40,7
Work rhythm	56,90	15,55	25	92	59,5
Development possibilities	62,12	18,38	0	100	65,9
Rewards	57,97	25,02	0	100	66,2
Paper conflicts	47,41	18,78	0	99	42,0
Colleagues social support	52,58	25,59	0	100	57,3
Superiors social support	53,05	31,78	0	100	61,6
Work insecurity	56,95	28,87	0	100	23,7

Source: Own Elaboration

None the less, if table 2 show apparently favourable results – less quantitative and cognitive demands, a work rhythm considered "acceptable" (Cadet & Kouabénan, 2005) - the analysis of the questions that compose these dimensions reveals both the presence of items related to work constraints and items that refer to individual assessment criteria. For example, the "quantitative demands" dimension integrates, namely, a question related to work constraints (workload) and a question based on the assumption that the person, by itself, tends to accumulate work.

Still, this analysis cannot be taken separately (disaggregation of the "quantitative demands" indicator), as advocated by the COPSOQ. The reason thereto is twofold: there is the risk the occupational health issues will be individualized and externalized and there is the risk the prescription of "best practices" may diminish the weight of organizational and social factors in their understanding (Silva, Amaral, Pereira, Bem-Haja, Pereira, Rodrigues, Cotrim, Silvério & Nossa, 2011).

3.2 Study 2: evaluation of risk factors with INSAT in the cork industry

The INSAT results, opposed to the COPSOQ's, are expressed in terms of frequency of exposure to different risk factors – environmental risk factors, physical constraints, psychosocial factors of risk – as it is illustrated in tables 3, 4 and 5, respectively.

Table 3. Frequency of worker's self-declarations to environmental risk factors

Exposure to:	Number of workers (%)
Harmful noise	40 (97,6)
Temperature variations (heat/cold)	38 (92,7)
Dust or gases	33 (80,5)
Chemical products	21 (51,2)
Other dangerous situations	8 (19,5)

Source: Own Elaboration

One of the INSAT particularities is its conceptual framework that conceives the work situation as a whole, besides its specific risks. For example, the identification of "other dangerous situations" corresponds, in this case, to the work with certain type of machines (e.g., laminators). This information comes from other complementary methods of analysis - such as the analysis of the work activity in real context (Lacomblez, Bellemare, Chatigny, Delgoulet, Re, Trudel & Vasconcelos, 2007) -, assuming that INSAT results are not self-explanatories, but have to be articulated with other data sources, namely from qualitative analysis.

Besides this, it is also visible in the interpretation of INSAT results the concern about the options on work organization and not about the individuals' performance or characteristics (tables 4 and 5).

Table 4. Frequency of worker's self-declarations to physical constraints

Exposure to:	Number of workers (%)
Repetitive gestures	32 (78%)
Precise gestures	23 (56,1%)
Harmful postures	33 (80,5%)
Intense physical effort	30 (73,2%)
Standing up at same position for a long period of time	24 (58,5%)
Standing up with displacements	30 (73,2%)

Source: Own Elaboration

Table 5. Frequency of worker's self-declarations to work rhythm constraints

Exposure to:	Number of workers (%)
Intense rhythm	23 (56,1)
Production norms or strict deadlines	31 (75,6)
Having constantly to adapt to method changes or work tools	25 (61)
Manage contradictory instructions	22 (53,7)
Hyper-request	26 (63,4)

Source: Own Elaboration

Another data that deserves to be highlighted in the usage of INSAT is related to health issues. On the one hand, these arise in this instrument after the exploration of work risks and, on the other hand, the confrontation between data of the following tables make visible how contrasting the results can be – when the question is more abstract (table 6) (the reference to health in a more global way) or when it is contextualized in the relation with work situation (table 7). A broader self-assessment of the health condition has implicit the judgment of the others regarding the (in)capacity to remain and perform the same job and therefore it may be underestimated (Coutrot & Wolff, 2005).

Table 6. Frequency of worker's self-declarations to the effects of work in health

Work affects my health…	Number of workers (%)
Not at all	16 (39)
Yes, mainly negatively	5 (12,2)
Yes, mainly positively	19 (46,3)

Source: Own Elaboration

Table 7. Frequency of worker's self-declarations to health problems related to work

Health problem	Number of workers (%)	Relationship with work (%)	
		Caused	Aggravated
Back pain	31 (75,6)	48,8	19,5
Musculoskeletal diseases	28 (68,3)	46,3	19,5
Anxiety/Irritability	17 (41,5)	14,6	19,5
Generalized fatigue	18 (43,9)	22	19,5

Source: Own Elaboration

3.3 Study 3: evaluation of risk factors with INSAT in the automobile industry

The third study was developed in the automobile industry, and highlights another specificity of INSAT further explored in this context, which enriches the debate about the instruments in the assessment of psychosocial risk factors. The INSAT includes a discomfort scale (Likert scale), to which the worker answers every time he marks being exposed to a certain risk factor. Tables 8, 9 and 10 are an example of this.

Table 8. Frequency of discomfort degree concerning physical constraints (%)

Degree of discomfort in exposure to:	Precise gestures	Painful postures	Intense physical efforts	Standing up at same position for a long period of time
Severe discomfort	4 (13,3)	7 (19,4)	11 (26,8)	7 (19,4)
Moderately severe discomfort	5 (16,6)	15 (41,7)	16 (39,0)	16 (44,4)
Discomfort	10 (33,3)	11 (30,6)	9 (22,0)	8 (22,2)
Minimal discomfort	11 (36,7)	3 (8,3)	5 (12,2)	4 (11,1)
No discomfort	0 (0,0%)	0 (0,0)	0 (0,0)	1 (2,7)

Source: Own Elaboration

Table 9. Frequency of discomfort degree concerning work intensification constraints (%)

Degree of discomfort in exposure to:	Intense rhythm	Follow production norms or meet strict deadlines	Hyper-request
Severe discomfort	5 (12,2)	1 (2,0)	2 (9,0)
Moderately severe discomfort	11 (27,5)	11 (22,4)	6 (27,3)
Discomfort	16 (40,0)	15 (30,6)	5 (22,7)
Minimal discomfort	8 (20,0%)	15 (30,6)	8 (36,4)
No discomfort	0 (0,0%)	7 (8,1)	1 (4,5)

Source: Own Elaboration

Table 10. Frequency of discomfort degree concerning social work relationships (%)

Degree of discomfort in exposure to:	Not having my opinion taken into consideration	Lack of recognition from managers
Severe discomfort	4 (18,2)	10 (45,5)
Moderately severe discomfort	4 (18,2)	7 (31,8)
Discomfort	3 (13,6)	4 (18,2)
Minimal discomfort	1 (4,5%)	1 (4,5)
No discomfort	4 (18,2%)	1 (4,5)

Source: Own Elaboration

On the one hand, it is visible in INSAT's analysis the attempt to express results in frequencies and not using averages, trying to highlight the weight of the exposure to different risk factors, more than trying to identify the "acceptability of the risk", with reference to standard mean values.

In fact, observing the results in table 9, it is possible to note the variability of workers' self-declarations concerning the degree of discomfort when exposed to intense rhythm, to production norms or rigid deadlines, or situations of hyper-request.

Besides that, it is the knowledge of the work activity, in the real context, as well as the knowledge of the options on work organization, that allows us to understand that in the case of an assembly line - with strong time constraints - a high percentage of workers declare discomfort due to the adoption of painful postures, the intense physical efforts and having to remain a long time up with displacements (table 8). Furthermore, the lack of recognition from managers considering the work done (table 10), as well as the values debate (Orgambídez-Ramos, Mendoza-Sierra & Giger, 2013) and the lower "power to act"

(Clot, 2008) according to their own opinions about the working methods, were pointed as harmful among these workers.

It is in this perspective that INSAT tries to exceed the traditional practices of risks assessment, reinforcing an approach more "comprehensive" than "explanatory", when assuming in the interpretation of its results, a coherent combination between the analysis of the activity and the use of a quantitative method of analysis.

4. CONCLUSION

Besides the diversity of themes framed under the notion of "psychosocial risks" – and, sometimes, confusing its causes with its effects (Nasse & Légeron, 2008) – the principle we assume in the analysis of the psychosocial risk factors is to anchor their assessment and prevention in the work analysis, trying to understand the risks in the scope of a contextualized approach and considering, at the same time, the interaction between them, that is, without treat them isolated.

The approach was developed, in the pathway of a greater recognition of these risk factors and its prevention, corroborates the perspective of using questionnaires that allow an analysis more centred on the work situation - in the context of a certain work activity, of a concrete enterprise, of a professional group, in view of the working conditions improvement (Borralha, Jesus, Pinto & Viseu, 2016).

The debate concerns also the passage from diagnosis to intervention (Lacomblez, 2012) and, in this sense, the proposal of questions that sustain the dialog with the actors of prevention in work safety and health domains: quantifying risks is a mean of giving them visibility, but how to use statistics taking into account the singularities of the work situation, as well as what escapes to a certain "statistical orthodoxy" (Volkoff, 2010)?

Bearing in mind the effective action upon the risk factors, it is important that the mediation instruments that assess such risks actually describe the causes (the working conditions and the organization conditions that determine their expression on health) and not only the symptoms. Therefore, the intervention focuses on the level of the work situation rather than on the level of the worker alone. It is even more so because a worker's "complain" is always subject to a values debate (Schwartz, 1997), or as Molinié (2010) puts it "(…) inform - or omit - an health problem (…) is also opening - or trying to avoid - the possibility that this information may have effects throughout the work life, effects that may be feared or wanted (…)" (p.70, free translation).

The conjuncture encourages the naturalization of the exposure to this type of risk factors or the assumption that it is the "lesser of two evils" (the worst-case scenario is losing the job). In this context, the shortage of surveys about the working conditions in addition to the absence of longitudinal data contribute to leave the exact outline of the effects caused by these risks in the gloom. Hence, it requires a different epistemological surveillance over the findings.

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