

## Comparative Analysis between Psychosocial Risk Assessment Models

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**Abstract:** The purpose of the present work is to perform a comparative analysis between the models of psychosocial risk assessment of the demand-control-social-support side of Karasek and Teohrel and Siegrist’s reward-effort, since, the year 2000. The models considered for the comparison is: Copenhagen of the year 2000 is TAS21 of 2005 the Toolkit for the evaluation of psychosocial risk factors of the Ministry of Social Protection of Colombia in 2010 and the model of evaluation of psychosocial risk factors determined by factors internal, individual, double and external presence of Bucci and Luna of the year 2013. The factors considered for the comparison are the internal of the individual and external organization of the worker.

**Key words:** Psychosocial risk assessment models, internal factors, individual factors, external factors, Venezuela

### INTRODUCTION

Psychosocial factors have evolved from an emerging risk to a key aspect of occupational health and safety management not only because of the welfare implications of workers but also because of their direct influence on productivity. In this sense Peiro and Rodríguez (2008) show that there is a relationship between a healthy and positive work environment and business results.

Serra presents three basic reasons for the performance of psychosocial interventions. The first one to avoid the consequences on the health of the worker by the influence of the psychosocial risks the second to comply with the legal obligations in the matter and third to avoid the negative effects that are generated in the quality and productivity of the work.

In this sense, it is relevant to know the dimensions of the existing psychosocial risk assessment models in order to guarantee their adequate identification and assessment, for their warning and correction. The definition of psychosocial risk factors considered in the report of the joint committee of the International Labor Organization (ILO) and the World Health Organization (WHO, 2007) on occupational medicine, drawn up in Geneva in 1984, states.

Psychosocial risk factors are the interactions between work its environment, job satisfaction and the conditions of its organization on the one hand and on the other the employee’s abilities, needs, culture and personal situation outside of work all of which through perceptions and experiences influence health and performance.

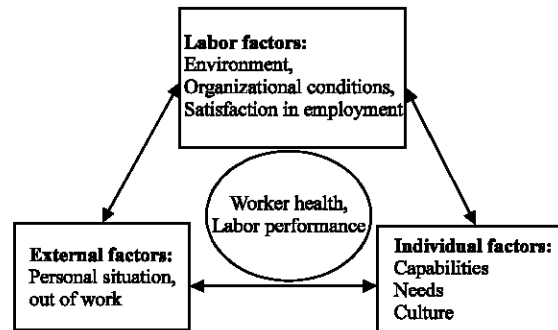


Fig. 1: Components of the definition of psychosocial risk factors presented by the joint ilo/who committee

The statement shows a multidimensional and comprehensive approach to psychosocial risk factors. The scheme shown in Fig. 1 shows that the factors that generate psychosocial risk in the work are labor, individual and external and also reflects that their interrelations influence both the work performance and the health of the worker.

The analysis of the definition allowed defining the factors to be considered in the comparison of the models. It is appropriate to review the internal factors of the organization the individual workers and external factors that examine the situation of the worker outside the organization.

**Psychosocial risk assessment models:** The models considered for comparison are: Copenhagen (Kristensen, 2000), ISTAS21 (ISTAS, 2013) the toolkit for the

**Table 1: Comparison of psychosocial risk assessment models of the karasek and tehorel and siegrist shed regards internal and external factors**

Model	Country	Years	Internal and individual factors	External factors
Copenhagen Psychosocial Questionnaire (COPSOQ)	Denmark	2000	Psychosocial requirements, active work and skills development, social support and leadership quality, compensations	Does not consider
ISTAS 21	Spain	2005	Psychosocial requirements, active work and skills development, social support and leadership quality, compensations	Double presence
Instrument battery for evaluation of factors psychosocial risk ministry of social protection	Colombia	2010	Job demands, control, leadership and social relations at work, reward	Time out of work, family relationships, communication and interpersonal of relationships, economic situation of the family group, characteristics of the house and its surroundings, influence of the extra work environment on the job, displacement housing work housing
Model of psychosocial risk factors determined by factors individual internal, dual presence and external	Venezuela	2013	Psychological, active work and skills; development, social support in the equality, health care services, housing company and quality of leadership, compensations	Doublepresence, family income, education, conditions, housing services, roads and means of transport, life conditions

evaluation of psychosocial risk factors of the Ministry of Social Protection of Colombia (Villalobos *et al.*, 2010) and the risk factors assessment model psychosocial behavior determined by internal, individual, dual and external factors by Peluso and Cardoso (2015). All are based on the demand-control-social-support side of Karasek and Tehorel and Siegrist’s effort-reward (Vega, 2003; Vilorio *et al.*, 2009) and emerged from the year 2000.

**MATERIALS AND METHODS**

Table 1 shows the country of origin, year of emergence, internal, individual and external factors of the psychosocial risk assessment models considered for the comparative analysis. The models evaluate only organizations that establish relationships of work dependent and in person that is to say there is an employment relationship between an employee and an employer, under certain working conditions developed in a specific physical facilities.

The internal factors of the Copenhagen model (Kristensen, 2000), ISTAS21 (ISTAS, 2013) and the Bucci and Luna model (Peluso and Cardoso, 2015). Have the same denomination. For its part the bank of instruments for the evaluation of psychosocial risk factors of the Ministry of Social Protection of Colombia (Villalobos *et al.*, 2010) even though they measure the same variables have different names. In this sense no notable differences are observed with respect to internal factors.

**RESULTS AND DISCUSSION**

On the other hand, in the chronological review of the psychosocial risk assessment models analyze, it is observed that in the most recent models the number of

external factors has increased. The Copenhagen Model (Kristensen, 2000) and the ISTAS21 Model (ISTAS, 2013) have similar internal organizational assessment factors, since, the latter is theoretically supported in the first and the only significant difference is that ISTAS21 (ISTAS, 2013) measures the external factor called double presence.

The bank of instruments for the evaluation of psychosocial risk factors of the Ministry of Social Protection of Colombia (Villalobos *et al.*, 2010) contains a specific questionnaire for the measurement of extra-labor risks but the conceptual basis that supports it is not published. The model of psychosocial risk factors determined by internal, individual, double and external factors by Peluso and Cardoso (2015) supports the variables and dimensions of external factors in the model of Social Determinants of Health of the World Health Organization.

**CONCLUSION**

It is observed that all the models evaluate the conditions of internal and individual factors. ISTAS21 (ISTAS, 2013) the battery of instruments for the evaluation of psychosocial risk factors performed by Villalobos *et al.* (2010). In Colombia (Villalobos *et al.*, 2010) and the model of evaluation of psychosocial risk factors determined by internal, individual, double and external factors by Peluso and Cardoso (2015) consider the measurement of external psychosocial risk factors.

The dimension of external factors of the ISTAS21 model (ISTAS, 2013) is called double presence, specifying the double burden of productive and domestic work. The instrument cluster for the evaluation of psychosocial risk factors performed by Villalobos *et al.* (2010) in Colombia includes a specific questionnaire for the evaluation of extra-occupational psychosocial risk factors.

The dimensions contemplated by the Bucci and Luna 2013 model (Peluso and Cardoso, 2015) offer guarantees of validity and reliability given that internal and individual factors are based on the version of the psychosocial risk assessment method ISTAS 21 (ISTAS, 2013) and external factors are based In the conceptual model of the social determinants of health of the World Health Organization (WHO).

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