

## Historical Development of Psychosocial Risk Assessment Methods

<sup>1</sup>Amelec Vilorio, <sup>2</sup>Nunziatina Bucci and <sup>2</sup>Marisabel Luna

<sup>1</sup>Universidad de la Costa, Barranquilla, Colombia

<sup>2</sup>Universidad Nacional Experimental Politecnica “Antonio Jose de Sucre”,  
Vice Rectorado Barquisimeto, Barquisimeto, Venezuela

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**Abstract:** The purpose of this study is to outline the historical development of psychosocial risk assessment methods that emerged from stress research based on the person-environment program formulated by Karasek and his colleagues with basic dimensions of study internal factors of the organization and individuals of the worker and in some cases, external factors such as the stress profile, general nordic questionnaire, Canevas, Travail et Sante, ISTAS21, the battery of instruments for the evaluation of psychosocial risk factors of Villalobos and the method of Bucci and Luna.

**Key words:** Psychosocial risks, internal factors, individual factors, external factors, Bucci and Luna

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### INTRODUCTION

The individual in different areas of his life is subject to multiple pressures that generate stress. An important source of stress is related to work and for this reason different models of stress study have been proposed as a support for the evaluation of psychosocial risks at work (Bucci and Cardozo, 2012).

Hence, research on stress has originated in two research programs: the first, stimulus-response and the second, more important, person-environment in which the interactional aspect is highlighted in the study of risks Psychosocial at work, formulated by Karasek and his collaborators from which different approaches have been derived since 1970 with basic common dimensions of study: internal organizational and individual factors of the worker and in some cases, external factors.

**Psychosocial risk factors:** With regard to the meaning of psychosocial risk factors Caycoya defines them as: “those characteristics of working conditions and above all of their organization that can produce specific damages to the health of workers. In fact, a recent critical review on this topic identifies psychosocial risks with stressors or sources of stress”.

Bucci and Luna (2013) perform a historical analysis that relates stress and psychosocial risks and as a consequence the diagnosis of the dimensions of the models that have studied stress the historical moment of its appearance and its main precursors, highlighting three steps in considering, in addition the study variable: first indications of the use of the term stress, stress

research based on the stimulus-response study program and stress research based in the person-environment program.

Research based on the person-environment program has two aspects: the transactional model led by Lazarus and the interactional model proposed by Karasek. The line of research that has generated the greatest contributions to the knowledge of stress and psychosocial risks is that of person-environment, highlighting the interactional aspect in the study of psychosocial risks at work formulated by Karasek and his collaborators (Bucci and Cardozo, 2012).

In addition of the methodologies of psychosocial risk assessment which has evidence of validity and reliability of the instrument is the ISTAS21 (Moncada *et al.*, 2005) model also developed on the theoretical basis of Karasek.

### MATERIALS AND METHODS

The psychosocial risk assessment originated in the 1970's. Figure 1-5 show the worldwide methods of the subject-environment interactional line from 1970-2010. The common feature of the multiplicity of existing methods is that they have two basic dimensions of study: organizational and individual factors of the worker.

The methods of evaluation of psychosocial risks that are the subject of analysis for their particular interest for this study are highlighted in gray in Fig. 1. The selection is due to the fact that in addition to assessing internal organizational and individual factors of the worker, influence of one or more external factors within its dimensions. These methods are:

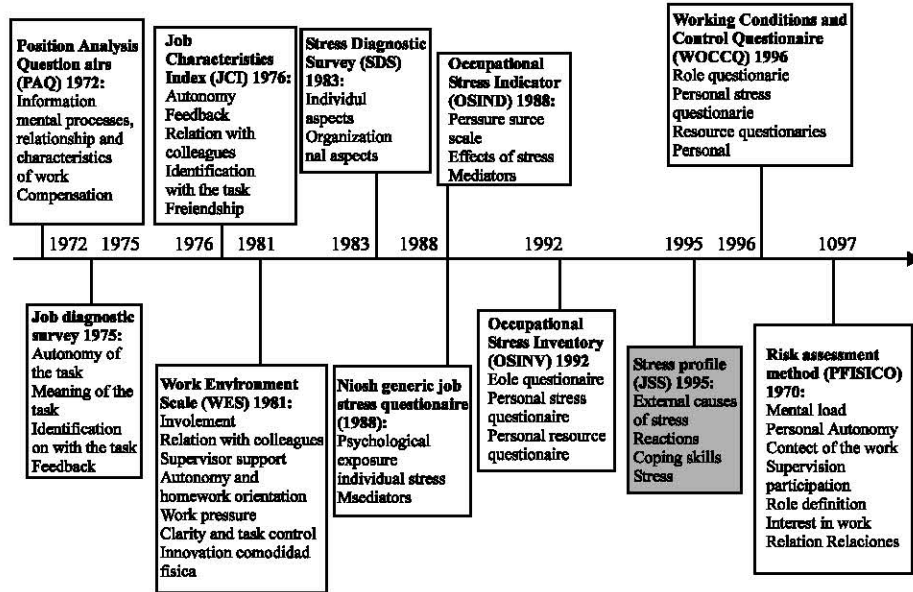


Fig. 1: History of methods for assessing psychosocial risks

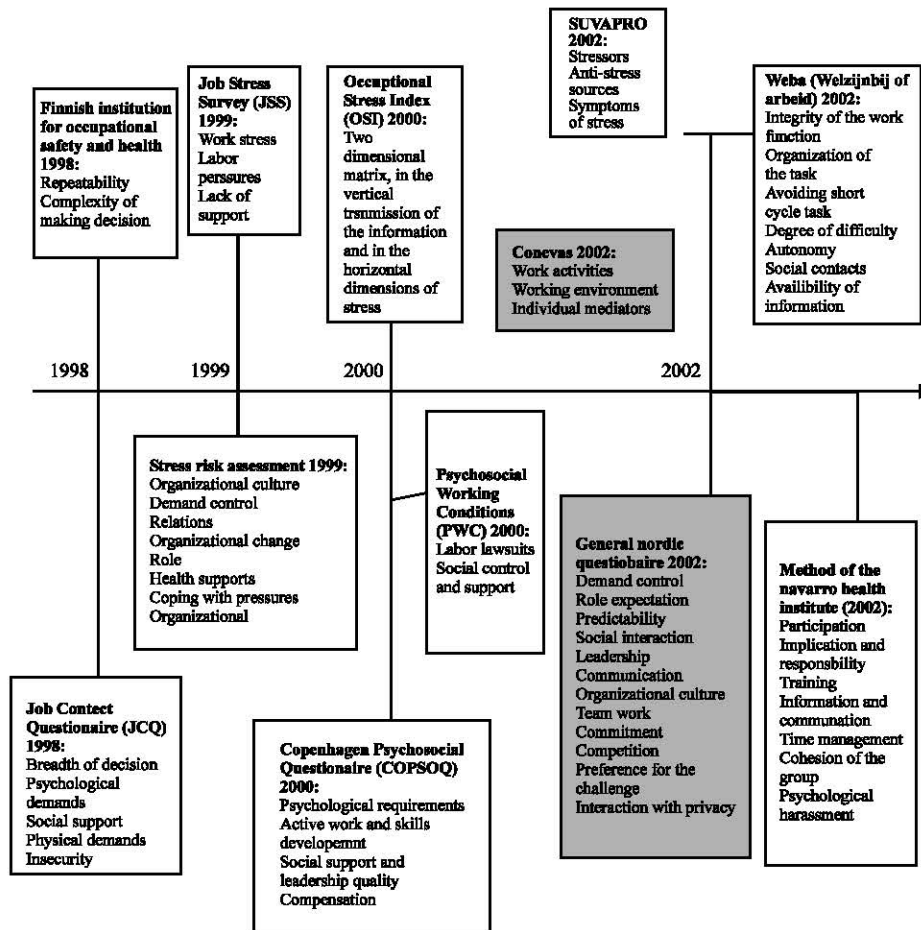


Fig. 2: History of methods for assessing psychosocial risks job questionnaire content (Bucci and Luna, 2013)

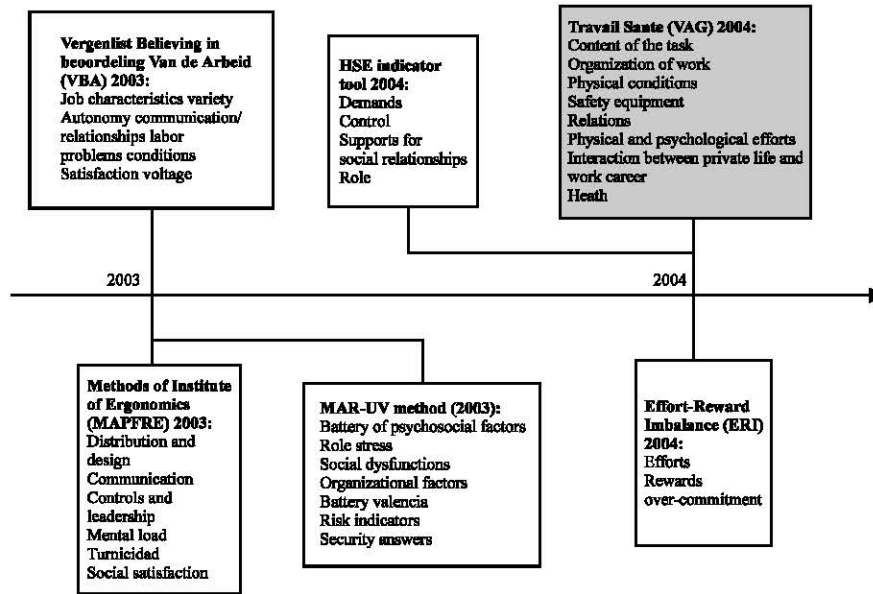


Fig. 3: History of methods for assessing psychosocial risks on job of method (Bussi and Luna, 2013)

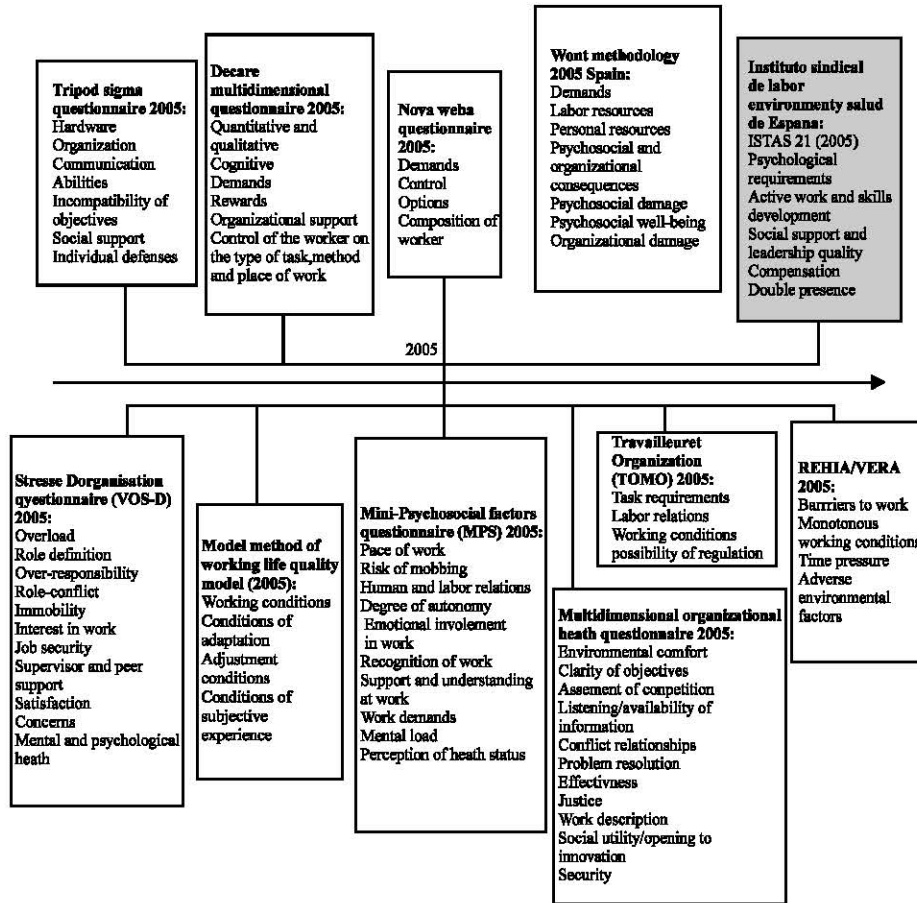


Fig. 4: History of methods for assessing psychosocial risks on stress dorgaisation

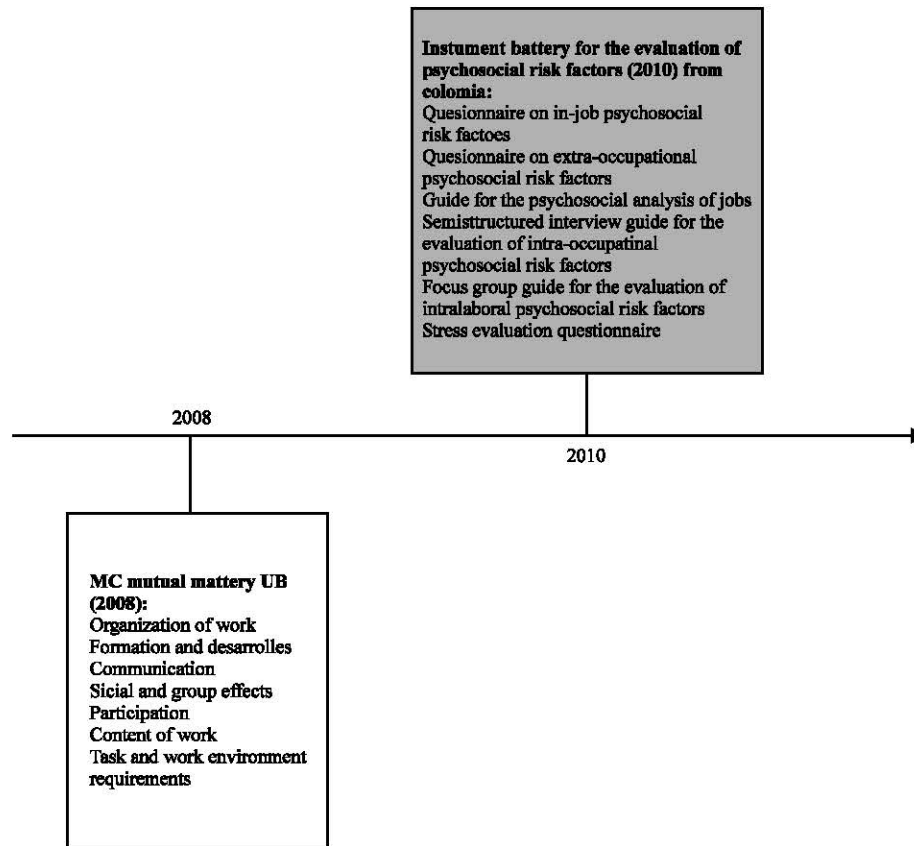


Fig. 5: History of methods for assessing psychosocial risks on MC Mutual Battery (Bucci and Luna, 2013; Silva *et al.*, 2009; Torres *s et al.*, 2010; Amelec and Carmen, 2015a, b)

- Stress profile which originated in 1995, includes a dimension called external stressors in order to estimate the influence of life events, relationships with partners, guilt and fear of pregnancy for women
- General Nordic questionnaire (2002) introduces an innovative factor called interaction with private life which explores on the one hand, the demands of work on the worker’s family life and on the other, how family demands intervene in the activities of the worker
- Canevas designed in 2002 has the variant when introducing as a psychosocial risk factor to family stress, i.e., the set of functional demands that fall on the worker as a family member just as the previous method is a factor which surpasses the work environment
- Travail et sante created in 2004 whose dimensions emphasize as an influential factor in occupational health, the way the worker combines his work life with the family
- ISTAS21 of the Trade Union Institute of Labor, Environment and Health of Spain, designed in 2005, includes a novel dimension called double presence, referring to the functions of the worker by tasks at work and at home which affect more frequently to women ie, it presents a gender perspective
- The toolkit for the evaluation of psychosocial risk factors carried out by Villalobos *et al.* In Colombia in 2010, includes a specific questionnaire for the evaluation of extra-occupational psychosocial risk factors where labor stress is assessed considering factors that go beyond the work aspect and family relations.

**RESULTS AND DISCUSSION**

Of the 43 psychosocial risk assessment methods reviewed and shown in Fig. 1, six are highlighted because they consider the evaluation of external factors. One of them is the battery of instruments for the evaluation of psychosocial risk factors of villalobos that includes time

away from work, family relationships, communication and interpersonal relationships, economic situation of the family group, characteristics of the house and its surroundings, influence of their extra-labor environment on work, displacement housing-work-dwelling. The remaining five: stress profile, general nordic questionnaire, canevas, travail Et sante and ISTAS21 consider only as an extra-labor factor the influence of work on family life and the worker's ability to face the responsibilities of his work and his home.

According to Moncada *et al.* (2005), the ISTAS21 method is distinguished within the group studied by: having a conceptual basis based on scientific knowledge in the field of occupational health since, it comes from the interactional aspect formulated by Karasek and his colleagues and so far is the line with the best results for the evaluation of these risks at work.

Then in 2013, the psychosocial risk assessment model by Bucci and Luna (2013) which includes internal factors of the organization, individual worker factors and double presence, established in the ISTAS21 model (Moncada *et al.*, 2005) is highlighted. External factors of the labor context derived from the model of the social determinants of health of the World Health Organization (WHO, 2007).

In this sense, point out that during the last 15 years several models have been developed to show the mechanisms by which social determinants affect health outcomes to Make explicit the relationships between different types of health determinants and to locate strategic points for political action.

## CONCLUSION

Psychosocial risk factors are part of occupational safety and health management. The definition of psychosocial risk enumerates three causes: internal factors, characteristics of the individual and external factors. There are methods for their evaluation that do not consider external factors. In this sense, the objective of the research is to highlight the psychosocial risk assessment models that include internal factors of the organization, individual factors of the worker and double presence, established in the ISTAS21 model (Moncada *et al.*, 2005) and the external factors of the context labor. In this sense (Bucci and Luna, 2013) consider external factors derived from the World Health Organization (WHO) (2007) model of social determinants of health.

Several researchers argue that in order to understand and improve health it is necessary to focus attention on

generating policies aimed at the societies to which people belong and to move from the study of individual risk factors to the social models and structures that determine the A person's chances of being healthy.

The relevance attributed to the evaluation of psychosocial risk factors lies on the one hand in the need to avoid the harmful effects they generate on worker's health and on the other on the increasing incorporation of measurement practices in order to obtain an integral vision of prevention. In this sense, it emphasizes the pertinence of an adequate valuation of the same with the aim of correcting or warning them.

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