Chapter 1.

Introduction

Most people spend a considerable amount of their lives at work, which is a dynamic context that may conduce to a solid sense of purpose and satisfaction, or to a wide range of negative health outcomes resulting from stressful encounters that impair effective functioning of both employees and organizations. For instance, work-related stress is an increasing problem that is considered to be responsible of 50% to 80% of all psychosomatic and stress-related diseases, and of more than 60% of all job accidents (Cartwright & Cooper, 1996). In terms of absence and sickness, reduced productivity, and associated health and compensation costs, work-related stress costs the United States industry more than \$300 billion per annum, and in the European Union the costs are estimated to be more than €20 billion annually for Member States (see EASHW, 1999; NIOSH, 2002).

Work-related stress also appears to be a growing problem in modern societies as many organizations increasingly find themselves operating in a changing internal and external working environment, which has the effect, among others, of increasing individual workloads and fears concerning job security or stability. Manufacturing industries are especially sensible to changes in working environments and need to learn to cope effectively in order to guarantee their own survival. To address these and other emerging workplace issues, the American Psychological Association (APA), the National Institute for Occupational Safety and Health (NIOSH), as well as other health-related organizations in Latin America (e.g., the PAHO), have pointed to the need of paying more attention to the consequences of the modern workplace on worker's health and well-being, by emphasizing also on the strategies that may conduce to (mal) adjustment.

It is expected, for example, that the workforce of the future will be markedly older, more racially diverse, and will include larger numbers of women. In addition, the workforce is being redefined by new types of challenges and novel employment practices that may demand more effective coping skills at the level of individuals and organizations. Nevertheless, little research attention has been paid, in occupational

settings, to understand the psychosocial dimensions and the coping mechanisms by which working people may function and stay well vs. those coping mechanisms leading to maladjustment and illness over the time. In addition, a closer look to the literature in the field of occupational stress lead us discover that attention has been given mainly to organizational arrangements, and less to the stress process, coping, and the changes in stress and outcomes from moment to moment.

Therefore, the present study aims at investigating work-related stress and health outcomes/quality of life by addressing three central aspects: a) the role played by personal resources (self-efficacy beliefs, proactive attitude) and social support (received advice) as protective factors in the work stress-health relation; b) the role played by personal resources (self-efficacy beliefs, proactive attitude) and environmental factors (work stress) in coping behaviors, by emphasizing the mediating function of coping as a path through which employees may become sick or stay well; c) the interplay between work stress, self-efficacy beliefs, coping, health outcomes, and quality of life, to be precise, relations of reciprocal influences among these constructs across the time. In addition, this work is considered to be a contribution to applied health psychology because it will provide an empirical basis to design and develop future plans oriented to the prevention of illness and the improvement in health at the level of individuals and organizations.

The dissertation has been organized as follow: Chapter 2 was aimed at unfolding the status of work-related stress and coping research, and it starts with a general introduction to the most influential theoretical perspectives that have guided this field over the last thirty years. To facilitate the task, the chapter offers a thematic classification which will also help to organize studies into one of the "big-four thematic axes" of research development, namely influential theoretical perspectives in work stress and coping research; measurement issues and coping instrument development; model testing research, in which model development and test of causes, mediating processes, and consequences of work stress are of relevance; and stress management/reduction research. This classification may be considered as a sort of site map that will guide the exposition of the literature review across three decades. In this way, after the brief introduction of most influential theories, some facts and data about the work stress and coping research

are described, such as the origins of the concept of coping in the work stress literature and the observed annual entries registered in the most important electronic databases during the last three decades. Then, the exposition is organized around the most relevant research challenges and advances during the 1970s, the 1980s, the 1990s, and the turn of the century, by taking into account the above mentioned "big-four thematic axes". Following this, preventive stress management is considered, as a field through which work stress and coping research might be implemented. Chapter 2 ends with a summary and an outlook regarding main challenges, advances and applications.

In Chapter 3, the topic centers on a more detailed explanation of theoretical frameworks from which research hypotheses of the present study are -in part- developed. This chapter is divided into two parts. In the first one, meta-theoretical principles of the Transactional Theory of Stress (TTS) (Lazarus & Folkman, 1984) are described, in order to understand work stress process in terms of antecedents, mediating processes, and outcomes. Into the TTS, the integrative conceptual framework of Moos and Schaefer (1993) is described, by emphasizing on coping based models of adaptive functioning and the role played by personal resources (and social resources) in coping and health/illness status. Subsequently, the transition from the TTS to the Cognitive-Motivational-Relational Theory (CMRT) of Lazarus (1991b) is portrayed, with the aim of explaining the function of emotions in human adaptation. At the end of the first part of Chapter 3, the most basic principles of the Conservation of Resources Theory (COR) (Hobfoll, 2001) are described, given that this approach has been considered by some authors as the new paradigm into the stress and coping research domain. In the second part of Chapter 3, basic theoretical principles are given, to understand the function of self-regulation in human functioning, as it is conceived by two remarkable self-oriented theories, namely the self-efficacy theory of Bandura (1997), and the self-regulatory behavioral theory of Carver and Scheier (1998). The theoretical framework of Bandura is introduced to understand how self-efficacy perceptions affect thoughts, behaviors, and emotional reactions. The self-regulatory behavioral theory of Carver and Scheier is then briefly described, by emphasizing on the concept of self regulatory process of goal-oriented (engagement) vs. anti-goal (disengagement) oriented courses of action, which contributes in understanding avoidance-oriented coping and proactive-oriented coping. In closing

Chapter 3, the most recent advances in the field of the proactive coping theory, which are significant to hypothesis testing process of this work, are described. Specifically, the theoretical framework of Aspinwall and Taylor (1997), and the theoretical framework of Ralf Schwarzer and collaborators (see Schwarzer & Taubert, 2002) are considered. Chapter 3 ends with a summary and outlook, in which "the possible limits" of proactive coping are briefly portrayed.

Chapter 4, which is also divided into two parts, concerns the following issues: a) the purpose, research questions, and hypotheses of the study, and b) the methodological aspects of the study. In the first part, study hypotheses are portrayed as follows: First, two hypotheses are delineated with regard the potential effects (main effects vs. buffering effects) of personal resources and social resources on the work-related stresshealth/quality of life relation. Second, three further hypotheses are described to assess whether coping would mediate the effects of work stress and personal resources on indicators of health and quality of life at a later point in time. Basically, avoidanceoriented coping was defined as a mechanism leading to more illness and higher negative affect, whereas proactive-oriented coping was conceived to be the path by which employees should remain healthy and stay well. The last block of hypotheses was centered on assumptions of reciprocal causation among work stress, personal resources, coping, health outcomes, emotional experience and quality of life across the time. In this case, four hypothetical models are developed, which aim at allowing further explanations to the issues of stability and change in the above mentioned constructs across the time. In the second part of Chapter 4, the relevant methodological aspects of the study are explained, by emphasizing on study design, sample characteristics, measures, and data screening. A deep description of statistical procedures carried out to assess hypotheses was avoided, since the strategy of analyses was precisely described, just before assessing each block of hypotheses into Chapter 5.

Results are described in Chapter 5. Before the explanation of hypothesis-related results, descriptive findings and prospective associations between T1 predictors and T2 outcomes criterion are offered. Then, in Section 5.2, hypothesis-related results about the "moderating" role played by self-efficacy beliefs, proactive attitude, and received advice as protective factors in the work stress-health/quality of life relation are explained.

Following these analyses, Section 5.3 presents results of the test of the *mediator hypothesis of coping*. Specifically, this section deals with the role played by coping as potential *mediator* of the effects of work-stress and personal resources on health outcomes and quality of life at a later point in time. Then, a synthesis of results for Hypothesis 2 to 5 is offered. In closing chapter 5 (section 5.4), the hypotheses about the interplay between work stress, self-efficacy beliefs, coping, and health outcomes over the time are assessed. As a rule of courtesy, all analyses are preceded by a brief summary of the specific hypothesis that is being tested.

Chapter 6 is concerned with the general discussion. This chapter begins with a brief introduction to the most common unsolved issues in the field of work stress and coping research. Following that, the strategy to discuss the findings is clarified. The evidence of the study is then discussed in the same order of results, by considering the extent to which analyses supported the hypotheses, alternative interpretations of findings in light of theoretical frameworks and research results of other investigators, and the possible contribution of results to theory and concrete applications. In closing Chapter 6, the limitations of the study and issues of internal vs. external validity, as well as directions for future research are considered.