Chapter 1. Introduction

1.1 Introduction

Nursing is generally considered to be a stressful profession. The nature and organization of the job make nursing inherently difficult (Clegg, 2001; McVicar, 2003: Gelsema, Maes, & Akerboom, 2007). Since the mid-1980s, however, nurses' work stress escalated due to the increasing use of technology, changes in health care, and increasing complexity of their work (Aiken, Clarke, Sloane, Sochalski, & Silber, 2002). These structural changes have led to the *intensification* of activity within healthcare as providers seek to do more work, with fewer people, in less time, at lower costs. Dysfunctional working conditions can impact both psychological well being of health care workers and the quality of cares (Montgomery, Panagopoulou, Kehoe, & Valkanos, 2011).

European countries can differ importantly in the number of nurses per capita. This ratio is markedly different in South and North Europe For example, Italy has one of the lowest nurse per capita ratio in Europe: 5 nurses per 1000 inhabitants. In comparison, the Dutch healthcare system has one of the highest ratios: 14 nurses per 1000 inhabitants (World Health Organization, 2006). As a result, workloads of nurses are heavier in some countries than others.

There are several theoretical models that relate work conditions to stress reactions. The most popular theoretical framework is the Job Demand Control (JDC) model (Karasek, 1979) and its expanded version, the Job Demand Control Support (JDC(-S) model (Karasek & Theorell, 1990).

1.2 The Job Demand Control (Social support) (JDC(-S)) model

The JDC(S) model focuses on three dimensions of psychosocial working conditions: job demands and the two job resources: job control and social support (Karasek et al., 1998; Karasek & Theorell, 1990). Psychosocial job demands relate to the work load, and include, for example, time pressure, role conflict and quantitative workload. Job control, or decision latitude, refers to the employee's ability to control his or her work activities and skill usage. It includes two distinct but related dimensions: decision authority and skill discretion. Decision authority reflects the extent to which employees have freedom over how they do their work and have a say over what happens. Skill discretion refers to the level and variety of the skill required for the work tasks and the possibilities to acquire new skills in the job role. Although decision authority and skill variety are two distinct concepts in the job design literature, they are often combined for analytic purpose, and are referred to as job control or decision latitude. Lastly, given that a considerable body of the occupational stress literature has examined the role of different types and

sources of social support as resources that people use in response to stressful working conditions, social support was added later to the model (Johnson & Hall, 1988; Johnson, Hall, & Theorell, 1989). Social support refers to instrumental and emotional support from colleagues and superiors (Karasek & Theorell, 1990).

The original version of the model assumes two basic hypotheses of how job demand and control may combine and lead to various distress and well-being outcomes: (1) the strain hypothesis which assumes additive effects of both dimensions: high job demands precipitate job strain, as does low job control (main effects); (2) the interaction or buffer hypothesis, that states that job control has a moderating effect on the relationship between job demands and job strain (interaction effect). Later, adding social support from coworkers and supervisors as a third dimension, a crucial issue became whether job demands, job control and social support combine additively (high demands, low control and low workplace social support are associated with highest stress: iso-strain hypothesis) or interactively (social support decreases the negative impact of high demands and low control: buffer hypothesis) to explain distress and well-being (See Figure 1.1).

A number of reviews (Van der Doef & Maes, 1999; De Lange, Taris, Kompier, Houtman, & Bongers, 2003; Häusser, Mojzisch, Niesel, & Schulz-Hardt, 2010) examined whether job demands, job control and social support combine additively ((iso-)strain hypotheses) or interactively to explain well-being. They indicated that the (iso-) strain hypotheses have been tested more often than the buffer hypothesis and that the (iso-) strain hypotheses have received considerable support, whereas, only limited support was found for the buffer hypothesis.

While the JDC(-S) model was a starting point for the research reported in this thesis, the chapters expand on the model for various reasons.

Firstly, the JDC(-S) model, neglects the impact of organizational variables on health-related outcomes (Van der Doef & Maes, 1999). The present thesis addresses this issue in chapter 3, where we examined in two groups of nurses (Italian and Dutch) how and to what extent various organizational variables from the Tripod accident causation model (Wagenaar, Hudson, & Reason, 1990; Wagenaar, Groeneweg, Hudson, & Reason, 1994) make an independent contribution in explaining occupational and general well-being, beyond that attributed to the JDC(-S) constructs.

Secondly, some authors (De Lange et al., 2003; Van der Doef & Maes, 2002; Gelsema, Maes, & Akerboom, 2007) indicate that the lack of support for the buffer hypotheses of the model could be attributable to the use of general scales to assess the JDC(-S) dimensions. More occupation-specific measures might be required to adequately assess the moderating effect postulated by the JDC(-S) model.

Therefore, in our studies (chapters 3, 5, 6 and 7) a specific measure developed with the purpose of assessing nurses' psychosocial job variables was adopted.

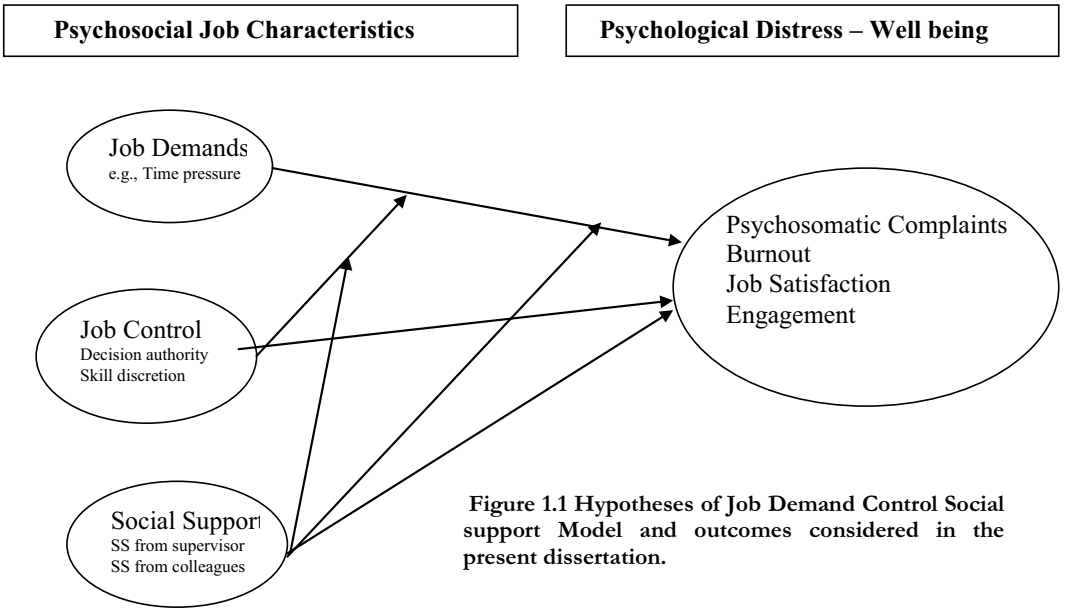

Figure 1.1 Hypotheses of Job Demand Control Social support Model and outcomes considered in the present dissertation.

A third issue regards the validity of the JDC(S) model in different countries. In chapter 3 we tested the effects of JDC(-S) characteristics on several strain reactions in two samples of academic nurses working in different European health care contexts, i.e. Italian and Dutch nurses.

Fourthly, traditionally, research on the JDC(S) model has neglected individual variables (Van der Doef & Maes, 1999; Semmer & Meier, 2009). The present thesis addresses this issue in chapters 4, and 5. In chapter 4 we described the development and psychometric qualities of the Occupational Coping Self-Efficacy for Nurses (OCSE-N) scale. The questionnaire measures the individual's beliefs about one's ability to cope with the specific occupational stressors (OCSE) of nursing profession. In the chapter 5 we examined the direct and the interactive role of OCSE in the JDC(-S) model(s). In addition, the attainment of personal goals at work may have an influence on the well being of nurses. In the chapter 6 we analyzed the mediating role of personal goal facilitation through work (PGFW), defined as perceptions of the extent to which one's job facilitates the attainment of one's personal goals (Ter Doest, Maes, Gebhardt & Koelewijn, 2006), in the association between JDCS variables and psychological distress and job-related well being.

The fifth issue concerns the design of the studies that tested the assumptions of JDC(S) model(s). The vast majority of studies that investigated the relationships between the JDC(S) model and psychological distress were based on a cross-sectional design and did not therefore permit inference of causality. Furthermore, the underlying assumption in many longitudinal studies is that psychosocial job dimensions remain fairly stable over time, allowing researchers to make causal inferences regarding the observed differences in psychological strain over time. However, as suggested by several authors (e.g., Roe, 2008) the work environment is not a static phenomen, it is dynamic and susceptible to change. In chapter 7 we examined the across-time effects of *changes* in JDC(S) variables on burnout indicators.

1.3 Outline of thesis

The studies included in this thesis focus on the relationships between occupational stressors and job resources, operationalized on the basis of the JDC(-S) model, and psychological well being and distress in nurses (See Figure 1.2).

Chapter 2 contains a state of the art review of 43 studies conducted among nurses and based on the Job Demand Control (Support) (JDC(-S)) model. The review addresses the different hypotheses of JDC(-S) model(s), investigating the effects of the JDC(-S) variables on general psychological distress and well being (e.g., depression, anxiety, somatic complaints, mental health) and job related well being (namely burnout and job satisfaction).

Chapter 3 presents the results of a cross national study conducted in two samples of Italian (N = 609) and Dutch (N = 873) academic nurses. The purpose of the study was to compare psychosocial job characteristics, organizational conditions, and specific outcomes (namely somatic complaints, burnout, and job satisfaction) in Italian and Dutch nurses; and to explore whether determinants of specific outcomes are different in both countries.

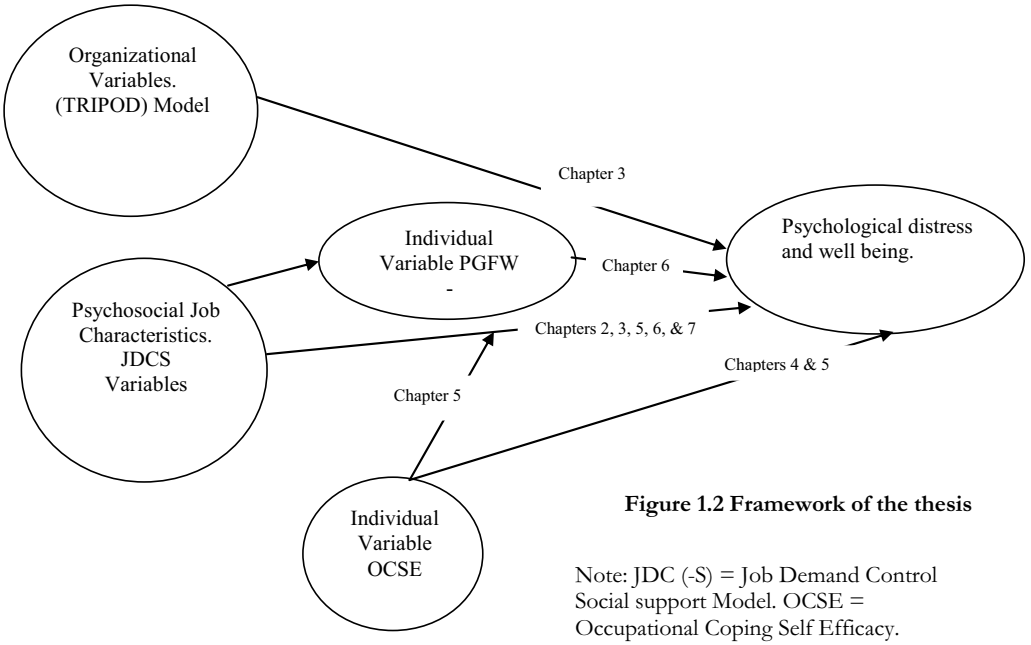

Figure 1.2 Framework of the thesis

Note: JDC (-S) = Job Demand Control Social support Model. OCSE = Occupational Coping Self Efficacy. PGFW = Personal Goal Facilitation through Work

Chapter 4 addresses one of the instruments used in this dissertation. Since occupational coping self efficacy can function as a moderator in the JDC(-S) model(s), the main purpose of this study was to develop and evaluate the psychometric properties of the Occupational Coping Self Efficacy for Nurses (OCSE-N) scale in a large sample of nurses.

Chapter 5 describes a cross sectional study conducted in a sample of 1479 Italian nurses. The aims of the study were: a) to test the core hypotheses of the Job Demand Control Support - JDC(-S) – model(s); and b) to extend the model analyzing the direct and moderating role of OCSE of nurses on relevant outcomes, such as psychological distress, somatic complaints, burnout and job satisfaction.

Chapter 6 reports on a cross sectional study that examined in a group of 217 Italian nurses whether personal goal facilitation through work mediated the association between JDC(-S) dimensions and specific outcomes such as somatic complaints, burnout, job satisfaction and work engagement.

The last study, which is described in chapter 7, is a longitudinal study on the relation between psychosocial job dimensions and burnout. This 14-months follow up study provides a longitudinal test of the JDCS model and aims to analyze whether changes in the job characteristics are related to (changes in) burnout in a sample of Italian nurses (N = 217).

The thesis concludes with a general conclusions and discussion (chapter 8). The major results of the studies described in this thesis, the strengths and limitations of the studies, and suggestions for further research are discussed. Finally, indications for practice are formulated.

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