Job stress in the nursing profession

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Chapter 1

Introduction

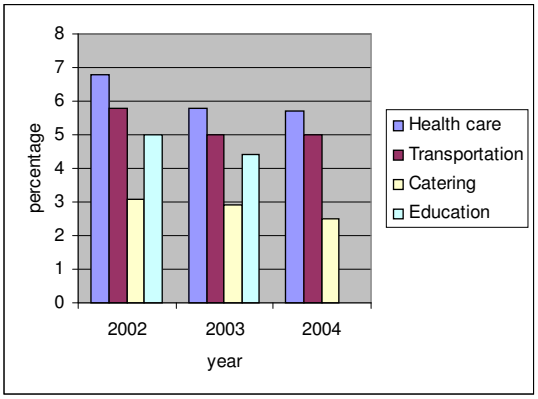
Introduction

1.1 Job stress in nurses

Job stress in the nursing profession has been a persistent global problem for many years now. It has been associated with a variety of adverse attitudinal, behavioral, physical and emotional health consequences. Among attitudinal and behavioral consequences are a diminished job satisfaction, turnover intentions, and actual turnover or absenteeism (Blegen, 1993, Borda & Norman, 1997). Among adverse physical and emotional health consequences are hypertension, cardiovascular disease, immune disorders, obesity, depression, and burnout (Karasek & Theorell, 1990; Maslach & Zimbardo, 1982).

Health care workers are at a higher risk for the development of stress or strain related illnesses. The Dutch Central Bureau of Statistics has shown that absence rates among hospital personnel are among the highest of all sectors and higher than absence rates in other stressful occupational settings such as catering industry, transport, or education (see figure 1). As a result of the occupational burden of health care workers, stress among nurses is widely studied. The number of studies on stress or strain among nurses has grown considerably in the last decades. The entries appearing in psychological abstracts after a search on the keywords "nurses" and "stress" have grown from 21 publications in the period before the 1970s to 57 in the 70s, 429 in the 80s and 754 in the 90s. From the year 2000, already 585 studies have appeared on this topic.

Figure 1 Absence rates in Health care, Transportation, Catering and Education



Source: Central Bureau of Statistics, the Netherlands

1.2 Occupational stress: definitions and models

A difficulty in conducting stress research is that stress is defined and operationalised in many ways. For instance, the concept of stress has variously been defined as both an independent and a dependent variable, and as a process. Consequently there are numerous models and theories on stress. However, these theories are composed of the same general elements. Beehr and Newman described a general model of occupational stress in which these common elements are shown (Beehr & Newman, 1978). It lists the classes of variables in which researchers on occupational stress are usually interested and it arranges the variables in a way that shows the typical thinking used by most researchers and theoreticians. Beehr describes the core relationship of occupational stress, by which he means: the relationship between an environmental facet and a human (health) consequence facet (Beehr, 1995). This relationship is mediated by psychological processes. The variability in definitions of stress is a consequence of different conceptualisation of this last facet (the process facet).

In this introduction Beehr's core facets of occupational stress and the process facet are viewed from different theoretical perspectives. This chapter concludes with the description of the perspectives from which job stress is studied in this thesis.

1.2.1 Stressor

Stress is derived from the Latin word stringere, meaning 'to draw tight'. In the 17^{th} century the word was used to describe affliction. Early definitions of strain and load used in physics and engineering eventually were adopted in the first psychological theories on the concept of stress and its effect on individuals. Under the meaning of this concept, external forces are seen as exerting pressure upon an individual, causing strain (Cartwright & Cooper, 1997). Stimulus-based definitions of stress have as a central theme to identify potential sources of stress (Goodell, Wolf, & Rogers, 1986).

Theories on occupational stress focus on a range of different stressors. One of the most well-known occupational stress theories is the job Demand Control Support model (Karesek, 1979; Johnson, Hall & Theorell, 1988). It states that three job characteristics (stressors) are crucial in explaining adverse health: high demands, low control, and low social support. A situation in which work pressure is high, and control and support are low is hypothesized to be most detrimental for the employee (the iso-strain hypothesis).

A category of other occupational stress models are the Person-Environment (PE) fit models. In these models, the source of stress defined as a misfit between a person and his environment, such as a misfit of the individual's needs with the organization's or job's provision of rewards and supplies or a misfit of the individual's skills and abilities with the job's demands and requirements (Harrison, 1985). PE fit models thus define a stressor as a combined effect of personal and environmental variables. PE fit models generally have an objective fit element as well as a subjective fit element. The objective fit element contains objective person elements which are attributes of the person as they exist irrespectively of his or her self-identity or self-concept, and analogously objective environment elements (Harrison, 1978). These elements can be categorized on the "stressor" side of Beehrs' core relationship of occupations stress (Beehr, 1995).

A third influential stress theorist states that "a person is under stress if what happens defeats or endangers important goal commitment and situational intentions, or violates expectations." (Lazarus, 1999, p.60). Here, the impact of the stressor on the individual is totally dependent upon personal variables: the person's goals, intentions and expectations. Contemporary definitions point to the idea that no one variable can be said to be a stressor, because only the person experiencing the variable or the event can label it as stressful (Lazarus, 1966; 1990).

1.2.2 Stress reaction

The work of Cannon introduced the idea that environmental pressures can cause disease rather than just short time ill effects and that people have a natural tendency to resist such forces (Cannon, 1929). Cannon studied the effects of stress on animals and people and, in particular, studied the fight-or-flight reaction (the physical reaction to either fight or flight when confronted with a stressor). He saw that people react physically to stressors: when confronted with a stressor, their physiological balance changes, for example, they show increased adrenaline secretions. Cannon described these individuals as being "under stress".

Hans Selye (1946) distinguished three stages in a stress reaction in his description of the General Adaptation Syndrome (GAS). The first stage is that of an alarm reaction: the initial phase of lowered resistance, followed by countershock, during which the individual's defence mechanisms become active. The second stage is that of resistance: maximum adaptation and, ideally, successful return to equilibrium for the individual. If adaptation mechanisms are not effective or stress continues, the individual moves to the last phase of exhaustion, where adaptive mechanisms collapse. Critique on this model has to do with its simplicity. The model does not account for the fact that different stressors evoke different physical reactions. For example, anxiety producing situations are associated with adrenalin-secretion, whereas aggression producing events are associated with noradrenalin secretion. Also, the GAS does not address the issue of psychological responses to stress (Cooper, Dewe, & O Driscoll, 2001). In the 1970s and '80s stress researchers started to study the emotional responses to stress by examining burnout and emotional exhaustion. It has long been recognized that health care workers by definition are at high risk of becoming ill or burned out. Burnout is a response to the chronic stress of dealing with individuals, particularly when these individuals are troubled or having problems (Maslach & Zimbardo, 1982). When people describe themselves as experiencing burnout, they are most often referring to the experience of emotional exhaustion (Maslach, Schaufeli, & Leiter, 2001). Emotional exhaustion refers to feelings of being emotionally overloaded and depleted of one's emotional resources.

In occupational stress research, stress reactions are often categorized into psychological, physical (health) and behavioural responses. Examples of psychological responses include anxiety and depression (House and Rizzo, 1972; Kaufman & Beehr, 1989) and burnout (Maslach & Zimbardo, 1982).

The most cited critique on stimulus and response based models of stress is that they are too simplistic. They do not account for individual differences in

responses to stressors. Two individuals exposed to exactly the same stressor might have completely different stress reactions. Stimulus and response based models of stress however are important in identifying and categorizing events that have the potential for causing stress and their responses, in order to provide optimal working conditions.

1.2.3 Individual differences, interaction and transaction: the process facet

Over time, stress theorists began to investigate the individual differences in the impact of outside stressors. Next to the nature and strength of the stressor and the stress reaction, cognitive processes that account for individual differences in the strength of the stressor-stress reaction relationship became of importance. There is great variability in theoretical outlines of this process facet.

One of the chief proponents of the psychological view of stress was Lazarus, who introduced the psychological concepts of appraisal and coping (Lazarus & Folkman, 1984). Lazarus (1966) suggested that an individual's stress reaction depends on how that person interprets or appraises the significance of a harmful, threatening or challenging event. After the first appraisal of the event, the individual makes a secondary appraisal in which one's coping resources and options to overcome the possible harm and threat are evaluated. By taking into account these personal variables, scientists began to understand why one person seems to flourish in a certain setting, while another suffers. The so-called transactional stress models are concerned with the dynamics of the psychological mechanisms that underpin a stressful encounter. The term "transaction" implies that stress is neither in the person, nor in the environment, but in the dynamic transaction between the two (Lazarus, 1990). The transactional definition points to three important themes: a dynamic cognitive state, a disruption or imbalance in normal functioning, and the resolution of that disruption or imbalance. P-E fit models of stress have defined the process facet as the subjective misfit between the person (abilities or values) and the environment (demands, supplies). The individual perceives the encounter in the light of his or her abilities to manage the encounter. This perception is conceptualized in terms of values, supplies, demands and abilities. However, the definition of the exact nature of misfit and appropriate measure of the constructs is problematic in empirical research (Edwards & Cooper, 1988).

Because of this difficulty with defining and measuring psychological processes, empirical research on occupational stress has predominantly been conducted from an interactional perspective. The interactional approach focuses on the statistical interaction between stimulus and response. Work stress models that best characterize the interactional framework postulate that the perceived presence of certain stressors may be associated with a number of stress responses. Various organizational characteristics, situational factors, and individual differences can influence (moderate) the strength of stimulus-response relationship. Although with the interactional approach differences in reactions to stimuli can be partly explained, these attempts to explain the complexity of such a relationship are limited to structural manipulations such as the influence of a third (moderator) variable, which again do not provide an explanation of the psychological process associated with stress (Cooper, Dewe, O Driscoll, 2001).

The gap between transacional theory and interactional empirical research could be due to a lack of detail in which psychological processes are defined. Recently, these processes associated with stress are described more and more detailed. Self Regulation Theory refers to the process in which people seek to align their behavior and self-conceptions with appropriate goals and standards and stress results from difficulties in the achievement of goals.

Higgins (1997, 1998) proposed two distinct self-regulatory systems, one in which people have a promotion focus, and the other in which they have a prevention focus. Peoples' regulatory foci are composed of three factors which serve to illustrate the differences between a promotion focus and a prevention focus: (a) the needs that people are seeking to satisfy, (b) the nature of the goal or standard that people are trying to achieve or match, and (c) the psychological situations that matter to people. In people that are promotion focused, the needs of growth and development predominate; they seek to attain goals that are associated with their ideal self, and positive outcomes are salient for them. People that are prevention focused are driven by security needs; they seek to attain goals or standards associated with the ought self, and salient emotions center around the presence or absence of negative outcomes. The use of Self Regulation frameworks seems to be promising in the context of empirical occupational stress research as it can help to define the process facet that explains the stressor-stress reaction relationship.

1.3 Outline of the thesis

This thesis makes use of different viewpoints of stress. It contains elements of stimulus and response based models, but also of interactional and transactional viewpoints. Chapter two contains a review that describes the literature on studies to the causes of job stress among nurses from 1990-2005. It describes direct relationships between external stressors and reactions in health and wellbeing. Next to direct relationships, this chapter also reviews moderating variables that have been studied. This chapter thus has a stimulus-response based viewpoint and an interactional viewpoint, and is meant to outline common stressors, stress reactions and moderating variables studied in recent stress research among nurses.

Chapter three describes a cross-sectional study that elaborates on how these stressors relate in their prediction of health and wellbeing outcomes. This chapter also has a stimulus-response based viewpoint on stress. These two chapters have an organizational perspective and give answers to questions such as: what can hospital managers do to provide optimal working conditions?

The study described in chapter four examines the reciprocity of the stressor-stress reaction relationship. It studies both the influence of work stressors on health, and the reciprocal relationship, that of health on the (judgment of) the work environment. Reciprocity of influences suggests a dynamic relationship, which is a characteristic of transactional stress models.

The last study, which is described in chapter five, focuses on an underlying process of the stressor-stress relationship. In an attempt to bridge environment, inner psychological processes and health, this final chapter attempts to describe relationships between the nurses' work environment and their health and uses elements of Regulatory Focus Theory to explain these relationships.

In chapter six, the results of the studies are summarized and discussed. This chapter attempts to integrate the findings and different viewpoints.

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