

Chapter XXII

Computer and Stress in Social and Healthcare Industries

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ABSTRACT

Social and healthcare industries offer demanding occupations, as they are very human-contact intensive workplaces and, moreover, the customers are usually met in critical and not-wished-for situations. Possible actions are many, and seldom are there clear procedures on how to continue: Each customer contact is a place for genuine decisions. Add to this deliberate service situation a computer, and you can count on difficulties. Our focus is on how information systems affect the stress levels of health and social-care workers. Our empirical study shows—among many other factors—strong correlation between the use of computers and stress levels in the healthcare professions: The more computer use, the more stress. We discuss what could be done to manage stress levels in relationship to computer use in health and social-care industries. In conclusion, we wrap the research findings together and

propose our extensions to the current knowledge on the relationship between stress and information systems in health care. Our most important finding is that when users understand the total collaborative work setting, computer work obtains meaning, and stress levels reduce.

INTRODUCTION

Knowledge or computer work and healthcare work are professional areas that spread out in modern society. Unfortunately, workers in both sectors are prone to suffer from stress. As we combine healthcare work and computers in the same environment, the situation becomes even more problematic. That is why we want to study the way in which computers cause stress in healthcare professions. Some of the factors that increase stress levels in both industries are summarized in Table 1.

Table 1. Work stressors in healthcare and computer industries

Healthcare
Intensive human contact
Customer interaction, often in a crisis situation
Decision-making pressure under insufficient information
Area's total professional knowledge growing fast, information overload
Computer industry
Work often performed by virtual teams
Area's total professional knowledge growing fast, information overload
Constant change of the discipline
Work with abstract entities
Need for networking

Research on stress and related phenomena has deep roots both in computer and information research as well as in healthcare research. In the field of computing, dominant topics seem to be those of information overload (Edmunds & Morris, 2000; Laskin, 1994; Levinson, 1970; Maes, 1994), coping with constant change (Thong & Yap, 2000; van Rooyen, 2000; Wastell & Newman, 1996) and problems of working in groups and virtual organizations (Anonymous, 1996; Armour, 1995; Kokko, Vartiainen, et al., 2004; Schill, Toves, et al., 1980; Trent, Smith, et al., 1994).

Our research questions include the following:

1. How do computers affect workers' stress levels in health and social care industries,?
2. What kinds of effects does information technology have on work?
3. What can be done to manage stress levels in the healthcare industries?

Methodologically, our research was very classical. First, we ran through a literature study on stress in general and specifically in the healthcare

and computer industries. Second, 5,000 Finnish healthcare professionals were given a comprehensive survey on their working conditions; the relationship between information technology (IT) and work was one of the topics discussed. This survey was originally administered by Statistics Finland on the order of the Finnish Institute for Occupational Health.

The chapter unfolds as follows: In the first section, we define the terms used (among others, *stress*), and briefly discuss why stress is very much present in health and social-care industries. In next section, we review the current literature on the relationship between stress, computers, and information systems. As stress is a usual phenomenon, in the following section we review how to manage stress levels in organizational work settings. Section 4 reviews results from a survey that got responses from 3,072 social and healthcare professionals in Finland. Finally, in the next section we discuss what could be done to reduce computer-based stress in the social- and healthcare industries. In the final section we discuss conclusions.

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