

VIII. Summary

Introduction and objectives

The work environment is one of the living environments that is increasingly referred to in the search for possible risks to both the physical and mental well-being of adult people. A continuously growing recognition of psychic and social factors as possible determinants of ill health has created a basis for the widening field of stress research concerning work life. As stress is seen as a risk for possibly any illness, a study clarifying its characteristics and causes serves the purpose of preventing work-related health problems.

Occupations and work environments vary greatly as sources of work stress. The possible stress factors of work done in closed institutions and, especially, in prisons are often the subjects of hypotheses but are only very rarely studied.

This report covers the third part of a study aimed at clarifying the work conditions and health of prison personnel. In the previous reports of the investigation, results on the work conditions, job satisfaction and health of the prison personnel were reported in a descriptive form, primarily for the practical purposes of improving prison work conditions.

The objective of the present report was to carry out an analytical investigation of the interrelationships between work, job satisfaction, stress, and health in a closed institution and to discuss the findings within the framework of a psychological theory of stress at work. For this purpose the following questions were studied and discussed: What are the occupational stress reactions (and their determinants) and the stress-induced health problems of prison personnel? What is the role of job dissatisfaction as an intermediary state in the development of stress at work? What is the interactive effect of personality and other individual factors and social support on

the relationships between work, job satisfaction, stress, and health?

Theoretical framework

The framework of the study was a model based on a review and synthesis of theories of stress at work. In addition an overview of previous studies on stress in work life was presented. The concept of stress was used to denote an imbalanced relation between a person and his environment. It may be caused by a mismatch between environmental demands and individual resources and between the potentialities of the environment and the individual's needs and goals. The qualities of the environment, divided into the objective and subjective work environment, were regarded as stress factors or stressors, and the response of the individual was defined as a stress reaction covering a wide group of psychological, physiological, and behavioral reactions. The end states of continued and/or strong stress were considered as the psychological, physiological, and social aspects of health. The development of stress is partly mediated by a generalized attitude towards work, ie, job satisfaction. The whole process is modified by individual background and characteristics, social support, and environmental factors other than the original source of the stressors.

Research material and methods

The subjects examined comprised all the employees of Finnish prisons born in 1940, 1935, 1930, and earlier. The participants numbered 787 and represented all occupational groups in the prisons (guards, principal guards, administrators, foremen, clerical staff, teachers, and health personnel).

The data on the work, stress, health, and professional history of the prison employees were mainly based on questionnaires introduced and distributed by the health personnel in each prison. Results of a health examination including laboratory measurements made by the mobile field clinic of the Institute of Occupational Health were also used. Personality characteristics were gathered with a self-concept test.

Summaries of the earlier reported descriptive results have been presented in the report. The results of the present study were based on explanatory analyses of the dependence of job satisfaction, stress and health status on work stressors and individual characteristics. The selection of indicators, of which many were multiitem scales, was mainly based on the factor analyses of each group of indicators. Correlation technique, automatic interaction detector (AID) analysis, and general linear model (GLM) analysis were used in three successive stages of the explanatory analyses.

Findings

In the first-order analyses, the work-related determinants of job satisfaction were studied. The data revealed that intrinsic work characteristics such as perceived challenge and the quality of the employee-prisoner relations were the most effective determinants of job satisfaction, as found repeatedly. Goal conflicts and dissatisfaction with salary were, in turn, among the best predictors of job dissatisfaction.

In the second-order analyses on the relation of stress reactions and health to work factors, job satisfaction was, in turn, treated as an explanatory variable revealing a generalized attitude towards work. Other global indicators of the occupational background and demographic data were used as parallel independent variables in the analysis of psychic and somatic symptoms, blood pressure, perceived health status, and an indicator of the positive aspects of health.

Occupation was found as one of the most effective predictors of stress reactions and health status indicating the highest risk for well-being in work including a close, continuous contact with

the prisoners and a punishment function. More distant work, with rehabilitative or administrative content, seemed more favorable. Length of service in prison and job satisfaction were other important predictors of stress and health indicators. Personality factors were strong moderators of these effects.

Prison characteristics reflecting features of the objective work conditions had weaker effects, but certain expected tendencies. A large size, overcrowding, and a high security level of a prison could be interpreted as possible sources of work stress.

The third-order explanatory analyses were done with an emphasis on more specific work stressors selected on a theoretical basis and other predictors selected on the basis of the AID analyses carried out at the preceding stage.

The data revealed that a perceived lack of challenge in work and conflicts in occupational motives and roles were among the most important predictors of stress reactions and disturbances of health. Organizational climate, insecurity, and quantitative work load were also significantly related to some, especially perceived, indicators of stress and health. Only a small proportion of the variation in diastolic blood pressure and none of the variation in serum cholesterol level could be explained by the specific work stressors.

Job satisfaction and social activeness were predominantly related to work characteristics other than stress reactions and health disturbances.

Personality characteristics were found to be important moderators of stress, and perceived social support had a buffering function against stress.

Conclusions

The results revealed significant relationships between the reactions of the personnel and work stress. Personality characteristics and perceived social support moderated these effects. Job dissatisfaction was found to be an intermediary phase in the development of stress at work. The applied theoretical model was found feasible for explaining the relationships between the concepts studied on the basis of the acquired results.

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