

STRESS IN HOSPITALS – ASSESSMENT OF PSYCHOSOCIAL AND PHYSICAL RISKS

1. Organisations involved

Havelland Hospitals (Havellandkliniken) GmbH (in cooperation with University of Potsdam, Institute of Psychology (Universität Potsdam, Institut für Psychologie, Lehrstuhl für Arbeits-Organisations- und Betriebspsychologie) and INQA — Initiative New Quality of Work).

2. Description of the case

2.1. Introduction

The Havelland Hospital Nauen is a new hospital in Brandenburg that was founded after German reunification and inaugurated in 1998. With its 470 employees and apprentices it is one of the most important employers and apprenticeship institutions in the Havelland district. Together with the Paracelsus Hospital Rathenow, it forms the Havelland Hospitals Group. Rathenow employs a further 290 workers. Havelland Hospitals focuses on health promotion not only with respect to the patients in the 17 specialised clinics in both facilities, but also when it comes to the workers.

Havelland is a member of the DGNfK-Network (WHO Network Health Promoting Hospitals).

Most hospital workers are health-care staff (nurses, carers, midwives, etc.). Their work involves physical strain (lifting, manual patient handling, working in awkward positions), risk from chemical and biological agents (disinfecting agents, blood), and psychosocial strain (shift work, intensive work, responsibility for patients and equipment, lack of scope for own decisions, etc.). This project illustrates what can be done to reduce psychosocial strain among care workers and to promote individual stress prevention strategies.

Figure 1. Workers in a busy office at Havelland Hospitals



From the very beginning Havelland Hospitals has taken responsibility for health promotion among both patients and workers. An in-house steering committee oversees this health promotion. The members of the steering committee are the Statutory Accident Insurance (LUK) Brandenburg, health insurance companies (AOK, Barmer, DAK, and IKK), Neuruppin Labour Inspectorate, and in-house stakeholders including management representatives, occupational physician, workers' council, health management representative, etc.

At its biannual meetings the steering committee also discusses how mental strain at work could be reduced. In 2003 it requested funding from the Initiative New Quality of Work (INQA) to undertake a thorough assessment with regard to psychosocial risks at work and to install a health management system accordingly. The University of Potsdam acted as a consultant and undertook the scientific coordination of the project.

2.2. Aims

The aim of the project was to thoroughly assess psychological risks at work and their organisational aspects. Assessment methods were chosen in accordance with ISO 10075-3. INQA also aimed to set up a pilot project for assessing mental workload in hospitals, in view of the fact that hospital work is known to be physically and psychologically strenuous.

2.3. What was done, and how?

Analysis was done between April 2003 and March 2004. The following wards were included: gynaecology, paediatrics, intensive care, emergency ward, anaesthesia, and surgery, at both facilities. At Rathenow internal medicine and maternity were also included. In total 238 workers were included in the analysis. The project team used various instruments for the assessment.

- Existing documents relating to quality management were analysed (e.g. patients' feedback, image analyses, complaints and suggestions, etc.).
- experts interviewed middle management (nursing management, heads of wards). This was to determine hospital practice concerning workers, ward organisation, work environment, equipment, communication and cooperation, work time, training measures, quality and health management, sick leave, etc.
- Nurses and aftercare workers were asked to fill in questionnaires about work and working conditions. These questionnaires took into account personal working conditions and psychosocial strain. A total of 87 care workers were included. Additionally, health screenings of the workers were carried out.
- The work in different wards was observed by experts from the university. Sixteen whole shift observations were done, including all three regular work shifts (early, late, and night) and standby duties. Working conditions were assessed with regard to type and frequency of tasks, physical and mental requirements, communication and cooperation, equipment, room for own decisions, working environment, interruptions and unexpected occurrences, pauses and time for rest, etc.

Instruments for the assessment of psychological risks

Psychological risks at work can be assessed by means of different instruments developed by psychologists and occupational safety specialists. In this case the assessment was done with the help of the SPA Questionnaire — Screening of psychological workload (Metz & Rothe, 2003) of the University of Potsdam. The SPA combines both job and personal analyses and consists of three parts:

- SPA-S (situation) allows a condition related assessment of labour situation through external examiners;
- SPA-P (person) is subdivided into the SPA-P1, which includes the individual reflection of labour situation and the SPA-P2, which ascertains the individual strain through the situation features;
- SPA-S and SPA-P are both subdivided into five fields of analysis to enable direct comparability:
 - (a) decision latitude,
 - (b) complexity/variability,
 - (c) qualifying requirements,
 - (d) risk-prone work situations/special requirements to operation reliability,
 - (e) strenuous working conditions.

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Within these fields of analysis, which are itemised into 37 questions, fault loads can be considered unlikely (value 0), likely (1), most likely (2), or acute (3).

- SPA-E (effect) is a list of possible somatic or mental complaints reported by employees during recent months. Workers describe different physical and mental complaints which can be categorised according to the individual experience as 'low', 'obvious' or 'strong'.

AVEM diagnosis (Work Related Archetypes of Experience and Behaviour, Schaarschmidt & Fischer, 2003) was used to analyse individual experience of psychosocial strain and individual strategies on coping with stress.

Results were completed with the questionnaire Salutogene subjective work analysis — SALSA (Udris & Rimann, 1999). The SALSA-Questionnaire is based on the concept of 'salutogeneses'. It is designed to evaluate how workers view certain characteristics of their work. SALSA comprises scales in five key ranges: job characteristics, organisational resources, social resources, workload, and load caused by working environment or external conditions.

Teamwork aspects were analysed using the Questionnaire on teamwork — FAT (Kauffeld, 2004). Successful teamwork depends on all team members having the same goal. The precondition is that a team can adequately manage its job requirements. Based on this, it can develop mutual trust, support and respect which enhance the cohesion of the team. The FAT-questionnaire helps evaluate teamwork by means of scales measuring goal orientation, task accomplishment, cohesion, and assumption of responsibility for the teamwork.

After the first phase of the assessment, the results were analysed, then presented by the university's experts and discussed by the steering committee. Feedback workshops were organised to present the results to ward managers, nurses and care workers. This enabled action plans to be drawn up and implemented. Two health circles were set up in Nauen: one on the emergency ward, and the second comprising nurses from various different wards. Health circle members were nominated by the hospital management board. The health circle work was guided by experts from the University of Potsdam and underwent training from quality management representatives. The aim of the health circles was to discuss solutions in terms of individual and collective preventive measures. The second health circle was also required to address interface and communication problems between different wards in the hospital. At the end of the health circle work concrete proposals for interventions were presented to the hospital's management for further action.

Figure 2. The risk of mental strain is particularly acute among nurses working in high-care wards



2.4. What was achieved?

Loads and resources

The experts considered that there was an acute risk of mental strain, particularly among nurses working in intensive care, emergency ward, anaesthesia and the surgical ward. This strain came about because of a combination of:

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- reduced latitude for decision-making;
- high complexity and variability of work;
- extreme requirements concerning reliability of work;
- additional strain due to other unfavourable working conditions

The nurses themselves perceived their work situation in the same way, particularly with regard to the high need for reliability and accuracy in their work. On the positive side, they found their work diversified and challenging. They were able to use their professional qualifications, and enjoyed social coherence and good cooperation with colleagues. They did express reservations about the latitude allowed for decisionmaking and the limited possibilities for participation (e.g. when compiling work timetables and standby rosters).

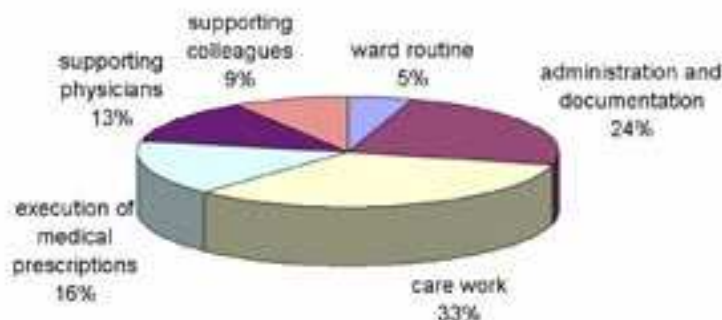
Further points of criticism were the short settling-in period for new nurses and caregivers, a lack of coordination in compiling operating room schedules and carrying out in-house patient transfer between wards in general. These and other issues were discussed in the health circles and as a result new guidelines were drawn up for the training of new workers. Changes were also made in the management of patient transfer and assigning operating rooms.

The limited scope for individual decision-making and the lack of general participation were also discussed in the health circles. The health circles accommodated complaints by promoting a new way of drawing up timetables and standby rosters that delegated more responsibility to the wards. The management also tested job rotation cycles, taking into account the new training guidelines for the nurses and caregivers participating. Initial feedback was positive, so the initiative will be expanded and prolonged.

Time budget and communications analysis

Time budget analysis revealed that the nurses were spending a lot of time doing administrative work. They spent one third of their overall working time with patients and 24 % of their time doing administrative and office tasks. Another 5 % of their time was spent on general ward routine. Other major tasks were supporting physicians or colleagues and execution of medical prescriptions.

Figure 3. Percentage of time nurses at Havelland spent on various tasks



The administrative tasks, in particular, were perceived by the nurses to be distracting and onerous. They felt that paperwork kept them away from important care work. Consequently, administrative tasks were delegated to the night shifts, where there was more time to devote to them as the amount of care work fell at night.

Further intervention and training measures

Some concrete work environment interventions were carried out to enhance the general working conditions of the care personnel. Examples are:

- better lighting for laparoscopy (surgery) in operation rooms;
- fastening of oxygen resuscitation apparatus in anaesthesia;

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- installing additional bed tables in intensive care ward;
- installing new software for accessing laboratory results on PC in emergency ward.

The health circles also introduced a programme for individual prevention that included training measures in progressive muscle relaxation, stress management, communication strategies, and conflict management. Training is provided on how to handle violence at work and dealing with death and mourning. Additional training sessions are offered in cooperation with Lufthansa Flight Training: ward teams go on two-day seminars where they reflect on strengths and weaknesses of their work organisation and teamwork. Teams are encouraged to come up with practical solutions to enhance the work situation in their ward.

Management approach

As a consequence of the project, the hospital management has been able to convert risk assessment and health promotion into permanent processes and integrate both into its quality and health management systems. Principles of management were adopted, including further training sessions and health management standards which can be measured with a 'balanced scorecard'.

Feedback on occupational safety and health is now an integral element in appraisal interviews as well as in staff and team meetings. In this way, workers' feedback on safety and health issues is integrated in ongoing management processes.

Problems faced

Workers had to be persuaded of the necessity and profit of health promotion measures, because to be successful health promotion needs the full cooperation of the target group. A key activity was therefore informing and motivating workers to participate in stress evaluation and health promotion measures. The management suspected that ongoing training had become so routine for employees that there was a need to really motivate them to pay particular attention to the health promotion measures. Only two health circles were established. More participation would have been desirable. In addition some workers criticised the policy of nominating members for health circles, saying they would have preferred it if participation had been voluntary.

2.5. Success factors

The project had the full backing of the hospital management, who in fact motivated for the project in the first place. In-house experience in health promotion was also useful during the assessment phase. The comprehensive approach of the project was a great advantage: by including data from various sources (integrated management system documentation, questionnaires, observations, and health circles) the stressors and weak points in organisation could be identified.

The existing quality management system allowed the quick integration of the health management after the project phase. The project could be transferred into a permanent design easily by using existing processes, infrastructure, and personnel resources.

2.6. Further information

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2.7. Transferability

The presented project is a beacon in the way it shows how psychosocial risks at work can be integrated into the risk assessment process. It shows how and why every employer should take mental strain and questions on good work organisation into consideration when carrying out risk assessments. Mental strain and bad work organisation can easily lead to overload and also cause somatic disorders. Statistics show that mental disorders are among the main reasons for permanent or long-term incapacity for work.

At the Havelland hospitals new projects and interventions were started afterwards. In the follow-up the working conditions of physicians and medical staff were evaluated (proof that the project can be transferred to other wards, companies, etc.). One example of the results is the introduction of new work time models for both groups of workers.

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