FROM HEALTH NEEDS ASSESSMENT TO ERGONOMIC ACTIONS. HOW TO INITIATE A PARTICIPATORY CHANGE PROCESS?

Mairiaux Ph., Muller M., Vandoorne C.,
Occupational Health and Health Promotion Dpt., School of Public Health,
University of Liège
Sart Tilman B23, B-4000 Liège, Belgium

A health promotion process has been launched within a large Belgian university hospital. This presentation outlines the organisational background of the whole process and the rationale underlining the choice of the methodologies used to survey the health needs of the health care workers and to define priorities. In order to elicit effective participation from the staff members, several questions have to be addressed in the transitional phase between problem situations assessment and ergonomic intervention : which channels use to disseminate the information about the survey results, what role for the top management of the hospital and for the ergonomic experts, which support methodologies should be provided for initiating the change process?

Key-words : participatory ergonomics, health care workers, health promotion, organizational change.

BACKGROUND.

The Liège University Hospital, a large hospital employing 2200 people, is a member of the Belgian French-speaking Health Promoting Hospitals (HPH) network, created in 1997 as a part of the European network. This W.H.O. network is based on the principles stated in the Budapest Chart on Health Promoting Hospitals and on the Vienna recommendations (Pelikan et al. 1997). Among HPH goals, those relevant to this study are : facilitating inside hospitals a participatory approach to health improvement, identifying specific target groups in the hospital and their specific needs, setting up work conditions consistent with staff health. Within this framework, a multidisciplinary steering group has been established in May 1997 in order to launch a health promotion process that would meet the main axes of the Ottawa charter (WHO 1986).This steering group involved at that time the hospital medical director, the health promotion reference nurse, the heads of both occupational health and safety departments, and the above authors as public health and ergonomics consultants. As a first step for involving the staff into a participatory process and setting up priorities, it was decided to base any action on a comprehensive survey of the employees' needs having as objectives : the identification of health needs among the different categories of the staff, their prioritisation, and the comparison between the employees' and the managerial staff's perceptions.The authors helped the hospital management in introducing an application for financial support from public authorities ; a grant was eventually awarded for organising the survey during the year 1998.

SURVEY METHODS AND RESULTS

A qualitative method based on structured group discussions was deemed preferable to an extensive survey using a self-administered questionnaire. A first reason was that a closed questionnaire might miss some items thought as essential by the interviewed people. Another reason was more organizationally related : from the management point of view, an extensive survey could make trade unions representatives more likely to use its results for unwanted purposes.

The selected survey method involved collective interviews within homogeneous groups. The homogeneity of the groups was thought essential in order to favor a free expression of the people involved. Criteria used for ensuring this homogeneity were the people function, rank and duties performed, along with the schedule constraints.

The survey objectives and methodology were first presented to the hospital Health and Safety (HeSaf) Committee involving the trade unions representatives; their agreement was obtained and the information process for giving a feedback to the staff members defined. Immediately afterwards (in February 98), a letter was sent to all staff members to inform them about the study and the chance of being selected for a group interview. The managers were all informed too and were asked to facilitate the workers' participation if they were selected (the interview taking place during working time). Meanwhile, the participants were randomly sampled among each hospital occupational category (n=13) so as to constitute the homogeneous groups (n=20), and invited to take part through a personal letter. A structured methodology, adapted from the Metaplan method (Muchielli 1996) and Montis' social diagnosis (Montis 1976), was used to elicit in those groups the expression of health needs and their ranking by priority order : description by the participants of work situations affecting positively, or negatively, their well being, grouping of those situations into main topics, and individual selection and ranking of the 5 topics judged most important.

A content analysis of the interviews was then performed, descriptive keywords selected, frequency and priority indices computed for each topic and plotted on a X (frequency) Y (priority score) graph .

Among the 2200 hospital employees, 400 were invited to take part to the discussion groups; 119 attended (rate 29,8%).The group interviews took place between March and June, while the individual interviews of a random sample of the hospital departments heads were completed in September 1998.

The scientific analysis of the results was completed at the end of the year. The detailed results will soon be published (Muller et al 2000). They can be summarized as follows. When considering the problematic situations selected by the participants, two main health needs in relation with daily work conditions were clearly identified: the physical environment at work (heat, noise,..) on the one hand and various factors affecting work load and perceived stress on the other hand. The contributing factors to the work load, as mentioned by the participants, are organised in two opposite ways : negative factors (lack of staff, lack of organisation, working in a hurry, no possibility for task planning) and positive factors, also called resilience factors because they help people to support difficult situations (team understanding, quality of the work performed, good patient-staff relationships).

STAFF INFORMATION PROCESS

The following steps can be outlined in the results diffusion process : in November 98, the draft full report (70 pages) is discussed within the HPH steering committee ; in February 99, the steering committee reaches an agreement on the communication methods and strategy. A 7-pages synthesis of the results is derived from the full report and approved by the steering committee. Between March and May, this summary is successively sent to the hospital executive director , the hospital managing committee members, the chair of the medical council, all departments heads, the HeSaf committee and eventually to all the group discussion participants. A one-page abstract is published in the June 99 edition of the hospital Newsletter. In September and October, the results are presented and discussed within the HeSaf committee and the Quality management committee respectively.

FROM DATA COLLECTION TO ERGONOMICS ACTIONS

In parallel to this diffusion process, several steps have been taken by the steering committee in order to pave the way for ergonomic actions that will be based on the diagnosis provided by the survey phase.

First, it was soon perceived as important to enlarge the committee membership in order to get support from each key sector of activity in the hospital. From mid-1998 onwards, the head of the nursing department and a representative from the medical council have been invited to the committee meetings. This enlargement policy was pursued in 1999 by including a representative of the human resources department, the executive director himself, and eventually at the end of the year, the trade union representatives.

The committee devoted most of its meetings in 99 to the elaboration of a strategy of action. It had been agreed beforehand that the management answer to the needs expressed by the staff will not be limited to palliative, partial measures of mostly technical nature but that actual organisational problems will be addressed. The possible elements of such strategy were discussed in two special meetings involving the executive director on the one hand, and two external experts specialised in organisational interventions. At the end of these two meetings, an agreement had been reached on the following key points : (1) the hospital management will make public its commitment towards a quality and well-being policy involving a participatory problem-solving approach ; (2) the management will provide a specific financial support to the hospital units or departments willing to develop this approach.

In this perspective, the following steps have been proposed : (a) the management invites the three main staff categories of the hospital (medical, nursing, administration) to define between 3 and 5 priorities of improvements for the near future; (b) the HPH steering committee elaborates a draft management policy declaration taking into account the priorities of these three sectors ; (c) this declaration is made public and all departments interested in taking part to an organisational change process invited to set up a participatory team involving volunteers from their staff, one or two people having managing responsibilities, and an external facilitator; the methodology to be used in these groups will be that of the "quality circles" : selection of one problematic situation judged important, identification of contributing factors using task and activity analysis methods, and brain storming to devise solutions. Although ergonomic participatory teams are not necessarily appropriate in every situation (Bohr et al 1997), it is hoped that they could constitute a breakthrough in an essentially hierarchical management style. This strategy is designed as a pilot strategy with as expected outcomes the spreading of the approach to a larger number of departments and/or the generalisation of some of the solutions proposed by the teams.

This process has now started but it is already apparent in January 00 that step (a) will not be carried out as planned. An updated appraisal of the whole approach will thus be presented at the congress.

DISCUSSION

Several questions are worth a thorough discussion in such a change process within a large and rather rigid structure.

Having in mind the end objectives, the ergonomic intervention, what is the most appropriate data collection methodology? Qualitative methods were selected to allow the free expression of all staff's issues and concerns. Nevertheless, the quantitative assessment provided by the use of frequency and priority scores made the results more convincing for the steering committee in search of priorities. Most importantly it gave validity and credibility to a change of perspective: a situation first viewed in terms of individual health was thereafter accepted as having a strong organizational component. Obviously, the method brought off a lot of results about the staff's issues, most of them the managers already knew. The survey report thus played a role in making clear and getting collective acceptance of some problems perceived by the staff and the managers. It should also have played a role in raising the awareness of staff members towards the beginning of a change process, but this remains to be assessed. However, some drawbacks of the methodology must be acknowledged. First its difficulty in setting up : organizing interviews, inviting participants, contacting again most of them to get their answer, conducting the interviews and analysing the material is time consuming and may

not be appropriate in every setting. The participants random selection does not ensure full representativity to the sample and the interviews cannot provide for sure precise information about every specific and localized ergonomic problem within the hospital.

The first requirement for a participatory approach lies in allowing the working community to define its own needs and to set its priorities for action (Wilson 1994). In order to achieve these goals in a hospital setting, staff's, managers' and board's involvement is mandatory (Rahimi 1995; Bohr et al 1997). This is why a steering committee had been set up very early in the process, in fact before the study begun. We drawn the lessons from a similar process conducted in another large hospital where an extensive survey was conducted but eventually did not result in any significant change in the organization because the management had not been prepared to consider the transition from analysis to practical actions. It was also deemed essential that directors or delegates from the different hospital departments get involved in the committee. This structure proved to be a key element to get an agreement and an involvement of the managers in the methodology to be used and to benefit from their support. Good indicators of the achieved support are the direct participation of the hospital executive director, and its now public financial commitment in support of the planned actions.

Aiming at participatory processes of change requires also very efficient and continuous communication exchanges between the steering committee, the various partners, and all individual staff members. In a large organization, a systematic and extensive information feedback implies however long time delays between the successive steps of action, as illustrated before, and this may give the prime target population the impression that nothing is actually done to answer their concerns. For that reason it may well be that the survey contribution to the staff awareness towards participation in a change process has been less than expected.

Another question refers to the role to be played by the experts in such a steering committee. Should they be consultants or more than that? Everybody agrees to their usefulness as consultants in giving an external perspective to the institution and in providing validated methodologies for collecting and analyzing data, and for setting up participatory structures. However other roles have to be played at some stages of the process : presenting the survey results in terms acceptable for all partners, negotiating the transfer of results into actions, mediating between traditionally conflicting views of staff categories, ...In the present stage of the process, when an effective participatory dynamics has not taken root yet in the organization, they have still to stimulate the hospital top managers in going ahead in the process of change. What could have been done in the previous phases to get the participation not only of staff members but of departments heads themselves? How far to go along that path of management support and stimulation? These remain open questions.

ACKNOWLEDGEMENTS

Study supported by grant n°12.32.13 DO 22 from the government of the French Community of Belgium.

REFERENCES

Bohr,P., Evanoff, B., Wolf, L. (1997) Implementing participatory ergonomics teams among health care workers. *Am J Ind Med* **32** , 190-196.

Montis, J.B. (1976) *Analyse et mesure du climat social de l'entreprise*, Paris: Entreprise Moderne d'Edition.

Mucchielli, A. (1996) *Dictionnaire des méthodes qualitatives en sciences humaines et sociales*, Armand Colin, Paris.

Muller, M., Vandoorne, C., Mairiaux, Ph. (2000) Between occupational health and health promotion. Assessment of a hospital staff's health needs.(submitted for publication)

Pelikan, J., Krajic, K. and Lobnig, H. (1997) Health Promoting Hospitals : developing hospitals as settings and agents for health promotion. *Euronews* **V**, 7-23.

Rahimi, M. (1995) Merging strategic safety, health and environment into total quality management. *Int.J.Ind.Ergonomics* **16**, 83-94.

W.H.O. (1986) Ottawa Charter for Health Promotion. *Canadian Journal of Public Health* **77**, 425-430.

Wilson, J.R. (1994) Devolving ergonomics : the key to ergonomics management programmes. *Ergonomics* **37**, 579-594.