Quality improvement by means of ‘differential’ occupational health care: An experiment in a regional occupational health centre

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From a general policy of quality improvement, the regional Occupational Health Centre Eastern Gelderland has developed a method of company health care based on the particular demands and needs of companies. A procedure of care 'made to measure' based on company and work characteristics was designed. For one year, an experiment was carried out in seven companies, to investigate if this 'differential care' is feasible, and if its quality is better than the traditional 'standard' form. After the experiment, the companies' satisfaction proved to have increased. The influence of the Occupational Health Centre on working conditions was estimated more important than before. The increased satisfaction is considered to be an indication of better quality of care, compared with the traditional 'standard' care. The differential approach appeared to be feasible. The method requires skills of professionals in the field of planning, cooperation, estimating costs and negotiating.

Key words: Occupational health care, quality assessment

INTRODUCTION

For decades, the contents of occupational health care in the Netherlands have not been changed. In the 1970s, much attention was paid to standardization, resulting in a number of standardized activities for daily practice. So most occupational health services (OHS’s) carried out the same set of activities for every company, in the same way, irrespective of the kind of the work and the working conditions. This standard approach was especially applied for medical examinations: pre-employment medicals¹ as well as periodic health examinations² of employees, but also examinations with regard to absence due to illness. The costs of these activities were not related to the activities themselves or to the time spent by professionals, but merely to the number of employees of an affiliated company.

In recent years OHS’s are asked by employers and employee representatives to pay more attention in modelling their activities to the particular demands of organizations on the fields of safety, health care and well-being in the work. The knowledge of companies on these fields has increased considerably. More and more, employers as well as employees recognize the importance of good working conditions, from both an economic and a health point of view. More often than before, companies formulate and emphasize their own particular demands in the field of occupational health care. Dutch OHS’s are still in the process of adapting to the demands of employers and employees.³ At the same time, quality in general has become a very hot issue in a lot of Dutch industries. Methods for quality assessment have been introduced for product and process quality as well as for environmental care and for occupational health care. In some industries, total quality management has been implemented, integrat-

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Differential occupational health and safety care is a form of occupational health and safety care that has been adjusted to a number of company characteristics:

- the type of the company activities and the working methods and expedients used
- the population of employees
- the organizational structure
- the working conditions in a broad sense
- the current social and health and safety policy

To ascertain to what extent this theoretical concept of differential care could be carried out in the daily practice of an OHS, a small scale experiment was decided on.

OBJECTIVES

The goals of the experiment were formulated in three questions: (1) Is a method of 'differential' company health care, based on demands and needs of organizations, feasible in a limited number of companies affiliated to a regional occupational health service? (2) Is the quality of differential care better than the traditional form? (3) If the questions 1 and 2 can be answered affirmatively, which recommendations can be made for the introduction of differential care on a wider scale?

Procedure for a differential approach

Starting from the criteria for good practice of service, the expert group has designed a procedure for the differential approach. This procedure outlines the systematic choice and execution of OHS tasks and activities by company and OHS experts together. In Table 1, the procedure is shown. A brief description of its phases or steps is given here.

At the start there is a blank situation: company and OHS are still unfamiliar with each other.

The company expresses its demands in the phases 0 and 1. The OHS elucidates its aims, intentions and methods. At the end of phase 1 a decision is made by both partners: do they want to continue or not?

If they do so, the OHS brings in its know-how in the phases 2 (stock-taking) and 3 (offer). For each activity, this offer must state the type of activities of the experts, the expenses and a rough time planning. In phase 4 (negotiation) an agreement is made about type of activities, employment of experts, and contribution of the company itself, not only in terms of money but also in terms of cooperation in activities.

In the phases 5–8 a first 'policy cycle' can be marked. Arrangements are made, activities are executed and evaluated by both partners. The output of the procedure consists of the realized health and safety policy, especially the contributions of the OHS experts in it. Our experiment's end point is in phase 8 (the first
An outline for a plan of activities. This outline contains issues that should be dealt with in each plan, e.g. demands from the company, indications for bottlenecks in working conditions, proposed activities, expenses and time planning. The purpose of this instrument is to facilitate the systematic draft of plans (phases 3 and 5) and their mutual comparability for quality assessment.

Methods for the draft of plans

To facilitate the systematic design of a plan of activities in close cooperation with the companies, the expert group has developed some tools to be used by the professionals.

A checklist for basic company characteristics. To get a provisional picture in phase 2 (stock-taking), the OHS team collected the available company information by means of a checklist. Some important items of this checklist are: information regarding type and size of the company; global processing information; current health and safety policy; former OHS activities.

Blueprints. The blueprints (stated in phase 3) are a global filling up of the occupational health care for certain types of organizations, e.g. for educational establishments, for hospitals and for chemical industries. They are a summary of the knowledge and experience of the OHS with regard to adequate care for a given branch of industry.

Methods for the assessment of the experiment's outcome

Three measurement instruments were used to assess the results:

The registration of OHS activities. The professionals had to register all activities in their daily work. The registered data (number, type and duration of activities) were used to calculate the real expenses of the service delivered.

Interviews with company officials. Satisfaction about occupational health care, i.e. the degree to which the delivered care meets the demands, goals and expectations of the organization, is considered to be an indicator for its quality and effectiveness. At the beginning as well as at the end of the experiment the expert group has interviewed a management representative of the company and a representative of the employees. The interviews were carried out in a standardized way.
The inquiry of the OHS professionals. For the assessment of the opinions of the professional teams about the differential approach, the expert group has designed an inquiry form to be presented to these teams shortly after the end of the experiment.

Selection of companies

Seven organizations, all affiliated to the OHC-EG for a longer period of time, have been selected for the experiment. The selected companies differ in place of establishment, size and branches. All companies had the standard package of occupational health care before the experiment.

The selected companies are indicated by type of industry or service:

- a slaughterhouse/meat processing factory
- a chemical industry producing glues
- an industry manufacturing corrugated cases
- a service for public works of a municipality
- an industry manufacturing textile products
- a furniture factory
- a regional hospital

Course of the experiment

The time period for the experiment was determined to be 12 months: from 1 April 1991–1 April 1992. In this period the phases 1–8 from the procedure for the differential approach should be passed through.

Much more time than expected was needed to reach phase 5: the presentation of a plan of activities accepted by the company. In some OHC-EG teams there appeared to exist problems causing a delay, like inability to work in a planned manner, difficulties in the cooperation between professionals, and difficulties in elucidating the benefit of occupational health care for the company.

Four months after the start of the experiment all plans had been drawn up and offered to the companies. Two types of activities appeared to occur frequently in the plans: (1) health policy supporting activities, like the draft of an annual plan for improvement of the working conditions, or an approach for the handling of toxic substances; (2) activities with regard to sickness absence, like the draft of an absence policy and the setting up of an accompaniment of absent employees.

OUTCOME

Because of the small numbers of participating companies (n=7) and involved professionals (n=20), only trends can be indicated.

The plans of activities have been realized for the most part. If parts had not been executed there was always a request from the company to cancel or to delay an activity. In the experimental period there were unforeseen events in the participating companies like reorganization, temporary production increase, closing of a department and departure of an important company official, giving rise to delay or cancelling of some parts of the plans.

Of the involved professionals, a majority of 73% judged the differential approach as improving quality of service, and expected the company to prefer the differential method for the future. Important advantages of the differential method were found to be flexibility, clear arrangements about contents and periods of execution, fulfilling of arrangements and attainability.

In six of the seven companies, the real expenses (calculated on the base of the time spent by the experts) could be compared with the amounts actually paid by the companies (based on the number of employees). In five of these six companies, the real expenses exceeded the amount actually paid by the companies in a degree varying from 15% (industry of textile products) to 69% (chemical industry). In one company (the hospital) the real expenses were 15% under the amount paid.

In general, the companies’ opinion about the quality of care was more positive after than before the experiment. The OHC-EG was judged more active; its influence on problems about work and health is judged greater. Some of the interviews showed an increase of knowledge about the activities and the capacities of the OHC-EG. The question ‘Do the activities meet your own objectives’, was answered before as well as after the experiment in the sense of ‘for the most part’.

DISCUSSION

The questions formulated before can now be answered as follows.

1. Is a method of ‘differential’ company health care, based on demands and needs of organizations, feasible in a limited number of companies affiliated to a regional occupational health service?

The differential approach, as defined for this experiment, appears to be feasible by a regional occupational health centre. This conclusion is based not only upon the large extent in which the plans of activities have been carried out, but also upon the fact that the time and effort needed have been realized by the members of the professional teams involved, in addition with other professionals. The potential increases in OHS costs, caused by further training of professionals (see below), have not been considered in this study. These costs are supposed to be made only at the beginning. However, some form of internal support will remain necessary, also after introduction of the differential method.
2. Is the quality of differential care better than the traditional form?

The companies stated repeatedly that the continuous adjustment of the activities to the sometimes changing demands was highly appreciated. This phenomenon itself can be judged as a kind of Hawthorne-effect: an increase in attention in itself gives rise to an increase in satisfaction. In any case, from the interviews one can conclude that the quality of the OHC-EG is judged more favourable after the experiment than before it. The OHC-EG was judged more active and influential with respect to the working conditions. The OHC-EG and its capacities, especially its knowledge of the work place, have become more known within the company. A cautious conclusion is that the experiment has caused an increase of satisfaction in the companies, indicating that there has been a more adequate response to the demands than before. If satisfaction increases, the quality of the services rendered is supposed to increase too.

3. If the questions 1 and 2 can be answered affirmatively, which recommendations can be made for the introduction of differential care on a wider scale?

Introduction of the differential approach. Introduction must be carried out gradually and it must be carefully planned. Some companies will not immediately be convinced about the improved quality, and will prefer the standard package for some period of time. Other companies may be convinced, but might consider the quality improvement not sufficient to outweigh the additional expenditure. In the long-term, this quality improvement does not automatically imply an increase of costs, if the OHS experts succeed in working more efficiently, e.g. by monitoring the time spent in different activities.

Draft of a plan of activities. The OHS should emphasize the importance of systematic stock-taking of risks and hazards in the work and working conditions. This is a crucial element of the method, not only for planning the activities, but especially for modelling the company's policy with respect to work and health of employees. At the moment of design of the procedure described, we did not know that an inventory of risks would be legally compulsory in 1994! Only on the base of a broad and professionally executed inventory can a plan be drawn facing the real needs of the company.

Evaluation of the OHS activities. The satisfaction of the company should regularly be measured. Evaluation has been built in in the policy cycle described in the procedure.

For a complete evaluation of the occupational health care, insight in the real time spent by OHS experts in the different activities is necessary, to be compared with the time offered in the plan.

Requirements for OHS professionals. For the complete execution of the differential approach, professionals need additional skills to guarantee a sufficient level of process quality. These skills are: the abilities to negotiate with the company officials; to estimate the time needed for the different activities beforehand; to work according to an arranged plan; and to cooperate with other experts both within and outside the OHS. Training and support of professionals with respect to these skills is needed. Not every professional can be both a good expert and a good consultant for every company. Nevertheless, both types of skills must be present within a professional team working for one company.

CONCLUSION

A differential approach in occupational health and safety care for companies is feasible for an occupational health service. The increased satisfaction of companies we observed in this experiment is considered to be an indication for quality improvement in comparison with the traditional 'standard' care. Training of professionals in additional skills with respect to process quality and consultancy is recommended.

REFERENCES