The intention to utilize occupational health services

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Workers' intention to utilize the Occupational Health Service (OHS), conceived as a cost-benefit assessment of an action, is described for a series of conceivable situations. Data were acquired during interviews with a sample of 313 employees with an over-representation of workers with work-related health problems in three different companies. Only for problems that are perceived as medical, individual and work-related, do a substantial number of workers intend to utilize the occupational physician. For health and work-related problems of a collective character, the line of supervision is mostly preferred for use as an adviser. Workers' intention to utilize OHS is positively correlated with their attitude towards the occupational physician. No associations were found with self-reported health status, working environment or actual utilization of the OHS. It is concluded that the intention to utilize the OHS is an independent factor affecting the actual utilization and it should be seriously taken into consideration when evaluating or implementing the coverage by the OHS.

Key words: Evaluation; Health Belief Model; help seeking behaviour; occupational health service; utilization.

INTRODUCTION

Workers' intention to utilize Occupational Health Services (OHS) is a crucial element in the analysis and evaluation of the effectiveness of programmes which aim to contact specific target groups. It indicates the attractiveness and potential of the service gaining contact with workers under specific circumstances. If workers use the service for reasons and problems which are not included in the objectives of the service, over-utilization occurs. Under-utilization occurs if services are not used by those for whom the service is set up.

According to the 'Behaviour Intention Model', developed by Ajzen and Fishbein, behavioural intention is the strongest predictor of the actual health-related behaviour. In Andersens' model on health services utilization the intention to utilize a service is one of 'need and predisposing characteristics'; the other group of determinants of actual utilization of health services in the Andersen model are the 'enabling characteristics', containing variables such as organization of the access, costs and geographical distance. In this paper the Health Belief Model is applied to analyze workers' reasons for consulting an occupational physician in the case of specific conceivable work- and/or health-related problems. The Health Belief Model that was designed to explain the likelihood of preventive behaviour at individual level contains two categories of predicting variables. This paper focuses on one of them: the 'perceived benefits and costs of an action'.

We have already published a paper on the actual utilization of OHS's, showing how 'enabling characteristics' (opportunities available for utilization, the way in which workers are invited or summoned for consultation) did clearly affect the extent and type of utilization. Recommendations for careful planning of the accessibility of the OHS could be based on these results. There was, however, another outcome that could not be interpreted unambiguously and gave rise to serious concern: workers with work-related health problems, who pre-eminently constitute the OHS' target group, did not more often consult an occupational physician spontaneously, and when they did these work-related problems were not discussed. This outcome which indicates under-utilization and inadequate communication between provider and client of
the OHS, was the reason for carrying out further analyses on workers' behaviour towards the OHS. The results of these analyses are presented in this paper.

AIM AND OBJECTIVES

This paper explores workers' intention for utilization of the OHS or other options, for a series of conceivable work- and health-related problems. Several company-, workers- and OHS-related factors are included as possible determinants. The aim is to obtain a better understanding of workers' motives for visiting the OHS (or even for not doing so) in order to get clues for optimizing the strategies to reach the workers who are the target of an OHS service.

The first objective was to identify workers' intention to use the OHS for various types of problems, and to classify the reasons underlying the decision to use the service according to the following characteristics which are assumed to influence a worker's preference for the OHS.

Work-relatedness of the problem. The problem is apparently caused and intensified by work and the work environment; regarding the OHS' mission, work-relatedness ought to be a specific incentive for utilizing the OHS.

Collective or individual problem. A collective problem is experienced by a group of workers, due to shared working conditions; an individual problem is experienced by an individual obviously due to individual conditions. Prevention of collective problems is considered OHS' most important task by workers. For individual problems a worker has options for getting assistance elsewhere, such as the general practitioner.

Specific medical problem. Defined as a specific biomedical problem, for which a specific medical (technical) intervention is obviously expected; a non-specific medical problem might contain a potential health risk but does imply a delicate problem that evokes uncertainty and requires preventive action or a personal advice.

A description of the problems included in the questionnaire and categorized according to the characteristics mentioned above, is given in Table 1.

The second objective was to identify workers' preferences for options other than the OHS in obtaining advice for the same list of problems. The other options are either in competition with the OHS or parallel alternatives in the 'market of work and health problems'. Workers' choice to utilize the OHS or an alternative option, implies a cost-benefit assessment by workers and reflects the relative attractiveness of the occupational health services in comparison with other options. Alternative consulting options for OHS-staff (physician, occupational nurse or the first aider) included in this research are: the line of supervision (the supervisor, the boss of the supervisor), staff departments (personnel department, social worker), workers representatives (trade union or workers' council), other medical officers (general practitioner) and personal relations (colleague and family member).

The third objective was to identify the determinants of workers' intention to utilize OHS. The following determinants were considered: workers' health characteristics (self-reported health status and work-related health problems, actual utilization during the previous year), biographical characteristics (managerial or operational function, age, education level), type of company (representing different working conditions) and type of OHS (organization of accessibility).

MATERIALS AND METHODS

Because of the explorative character of the research, the sample procedure aims to include variation on those variables that might explain workers' utilization of OHS. In three Dutch companies which differ with respect to size (3,478, 2,618 and 443 workers), type of OHS (corporate OHS in which the staff has the status of employee, or combined OHS in which the staff operates as an external adviser) and branch (metallurgic, chemical, textile), non-representative, stratified samples were composed (n = 313). These company characteristics indicate differences with respect to health risks, education level and availability of occupational health services. In each company, three or four categories of workers were defined on the basis of the type of work and working conditions (for example in the chemical company: production, maintenance and Research & Development). From these categories, one or two 'functional units' (i.e., a group of employees working under one supervisor) were selected at random. All employees of a selected unit, from work-floor to the highest management level, were included in the study and invited for an interview. In addition to employees from the functional units, a number of employees were selected from files of workers with partial disabilities or at least 30 days absenteeism during the previous year; they were considered to have had more experience with work-related health problems which might affect their intention to utilize the OHS. The category of workers who had experienced more work-related health problems represents approximately 30% of the samples in each company. The sample characterizes the variation in health status and working conditions in the companies included in the study. The response rate was over 90% in each company. More details on the sampling procedure can be found elsewhere.
interviewed workers concerning their choice were written down by the interviewer. After the interview a self-administered questionnaire was completed with questions on health status, working environment and judgement on the OHS. Actual utilization figures were obtained from the OHS files and the absenteeism registration files of the Personnel Department.

RESULTS

Table 1 shows workers’ preferences for obtaining advise from the occupational physician, in the first and second place, as well as from other persons or options. From the original list of 11 options that could be consulted, six are explicitly included in the table, others are put together in one category because their scores were extremely low or concentrated on a single problem; details are given in the note to the table.

Only for the problem of ‘back pain because of work’, the occupational physician (together with the general practitioner) unambiguously was preferred as an adviser in the first and second place. For all other work-related problems, workers sought advice from their supervisor or the supervisors’ boss in the first and second place. For the problem of ‘smelly and dusty workplace’, the occupational physician was mentioned by a substantial number of workers as an adviser in the second place. The Workers’ Council and Trade Union were indicated more often in connection with advice for problems concerning ‘working conditions’ as well as ‘working relations’, while the Personnel Department, including the social worker, was mentioned in the second place for ‘personal problems’ and ‘problems with working relations’. For ‘minor ailments’, the general practitioner was the most preferred adviser, as could be expected, but the occupational physician was also mentioned in the second place by a considerable number of workers. The almost equal preference scores for the general practitioner and the occupational physician do not imply that workers do not perceive relevant differences between the two. Workers do weigh up the pros and cons of consulting one or the other physician. Arguments in favour of consulting an occupational physicians are the proximity and the ability to influence working condition; main contra arguments are the relationship with management and the uncertainty about the way in which potentially conflicting interests are handled.

The pattern of workers’ preferences for the occupational physician, as indicated by the sequence of problems for which the occupational physician was mentioned most frequently as an adviser in the first or second place, varied very little between companies and between different categories of workers. ‘Back-pain because of work’ was mentioned in all three companies most frequently, by both managerial and operational employees, and also by workers who reported health problems, whether work-related or not. In all these groups ‘smelly or dusty workplace’ and ‘burden of work’ were among the four most frequently mentioned problems for which the occupational physician was the preferred adviser. The pattern of workers’ preferences for the occupational physician were not significantly different in the various age groups.

The occupational physician was mentioned as an adviser at least once in the first or second place by 83.8% of interviewed workers and by 47.3% as an adviser in the first place. Workers’ degree of preference for the OHS, indicated by the frequency with which the occupational physician was mentioned by a worker for all problems presented in the list, significantly correlates (Kendall’s $\tau$, $p < 0.01$) with their attitude towards ("trusting the occupational physician") and judgement of the occupational physician (on the aspects of medical expertise; understanding workers; being informed about work, working conditions and health risks). Workers perception of the influence of the occupational physician within the company showed only a weak statistical association (Kendall’s $\tau$, $p < 0.10$); there was no significant correlation with the actual utilization of the OHS (number of visits to the open consultation hour during the previous year), absenteeism, number of health problems (whether or not work-related), age and education level. When controlled for type of company, the significant correlations were confirmed and no others became apparent.

DISCUSSION

Although workers consider preventive action towards the working environment and assistance with collective work-related health problems as the most important task of the occupational health service, they do not intend to contact the service personally for that reason. These findings seem to be contradictory and incompatible but if workers’ intention to use the OHS is conceived as the result of a cost-benefit assessment, this apparent contradiction can be explained: obviously, the line of supervision is considered to be more beneficial and capable of achieving the desired changes. Approaching the occupational health service for collective problems was sometimes even considered a risk (a cost) because it could place blame on the supervisor, as illustrated in the following quotation from a worker: ‘It won’t be at all a good thing if they from the head office ask my boss how he runs things here and if he bullies his people; he will certainly try to find out who informed on him’. The authority structure in a company, defined as the perceived chance to bring about the desired changes and minimize negative sanctions, seems to be the most important determinant of the pattern of preferences. An argument in favour of this assumption is that no differences were found between the three companies (despite clear variation with respect to the educational level of the workforce, working conditions and organization of the OHS) or between different categories of workers (operational or managerial, health problems,
Table 1. Intended utilization of occupational health services and alternative options for various work and health problems

<table>
<thead>
<tr>
<th>Hypothetical problems</th>
<th>Supervisor</th>
<th>Supervisors’ boss</th>
<th>Workers’ council or Trade Union</th>
<th>Personnel department</th>
<th>Occupational Physician</th>
<th>General Practitioner</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working conditions (W,M,C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Hot, cold or draughty working place</td>
<td>1st place</td>
<td>73.0</td>
<td>8.0</td>
<td>3.7</td>
<td>—</td>
<td>0.8</td>
<td>—</td>
<td>15.2</td>
</tr>
<tr>
<td>Smelly or dusty workplace</td>
<td>2nd place</td>
<td>20.9</td>
<td>26.2</td>
<td>22.8</td>
<td>7.2</td>
<td>9.6</td>
<td>2.0</td>
<td>15.2</td>
</tr>
<tr>
<td>Workload (W,M,nC)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Back-pain because of work</td>
<td>1st place</td>
<td>68.0</td>
<td>8.6</td>
<td>5.9</td>
<td>0.5</td>
<td>6.0</td>
<td>1.9</td>
<td>9.5</td>
</tr>
<tr>
<td>Burden of work</td>
<td>2nd place</td>
<td>12.4</td>
<td>26.4</td>
<td>22.3</td>
<td>5.8</td>
<td>21.7</td>
<td>1.0</td>
<td>10.3</td>
</tr>
<tr>
<td>Working relations (W,M,nC)</td>
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<td></td>
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<tr>
<td>Problems with the boss</td>
<td>1st place</td>
<td>10.1</td>
<td>50.7</td>
<td>8.6</td>
<td>15.4</td>
<td>0.5</td>
<td>0.5</td>
<td>14.3</td>
</tr>
<tr>
<td>Problems with colleagues</td>
<td>2nd place</td>
<td>2.8</td>
<td>16.9</td>
<td>39.4</td>
<td>35.4</td>
<td>2.2</td>
<td>—</td>
<td>6.3</td>
</tr>
<tr>
<td>Personal problems (nW,nM,nC)</td>
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<td></td>
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<td></td>
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<td></td>
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<tr>
<td>Illness at home</td>
<td>1st place</td>
<td>65.5</td>
<td>4.2</td>
<td>2.3</td>
<td>2.3</td>
<td>1.4</td>
<td>—</td>
<td>23.8</td>
</tr>
<tr>
<td>Problems with children</td>
<td>2nd place</td>
<td>23.3</td>
<td>32.0</td>
<td>9.4</td>
<td>16.7</td>
<td>1.7</td>
<td>0.8</td>
<td>17.2</td>
</tr>
<tr>
<td>Minor ailments (nW,M,nC)</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Continuous cold</td>
<td>1st place</td>
<td>2.2</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>20.3</td>
<td>72.6</td>
<td>4.8</td>
</tr>
<tr>
<td>2nd place</td>
<td>4.4</td>
<td>2.5</td>
<td>—</td>
<td>43.4</td>
<td>31.4</td>
<td>17.3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a) (n)W: (not) work-related; (n)M: (not) specifically medical; (n)C: (individual) collective.

b) Including the company social worker, who was mentioned as a separate item of choice.

c) Besides advisers included in the table, respondents could also choose between a ‘colleague’, ‘member of family’, ‘first-aider’ and ‘occupational nurse'. In these cases the scores were so low that they are not mentioned separately. In the case of personal problems, members of the family were often mentioned. An occupational nurse hardly ever visited the textile company while in both other companies a full-time nurse was employed by the OHS; in both these companies the occupational nurse was mentioned as an adviser only in the second place: for workload (back pain because of work) by 3.5% and for illness at home by 3.1%. Colleagues were mentioned for working relation, workload and working conditions. Family members were mentioned only with respect to personal problems.

In general, workers actually do prefer the occupational physician as an occupational health expert, providing expertise on the assumed work-relatedness of health problems. In this quality the occupational physician turns out to be compatible with the general practitioner. Inversely, for a considerable number of workers, the occupational physician appears to be compatible with the general practitioner as a medical practitioner, if a simple treatment is needed for a minor ailment. Räsanen made the same observations for Finland. However for matters of confidence involving more personal or family problems, the general practitioner is the preferred adviser. The degree of workers preference varies with the perceived quality of the occupational physician (involving aspects such as expertise, the ability to understand, secrecy, maintaining objective standards) and with no other variables that were included as potential determinants. The perceived influence of the occupational physician is minimally associated with the degree of preference. As has been observed elsewhere, workers sometimes utilize the services of the occupational physician for strategic reasons, to achieve other aims. Although our data have been collected in one country, generalizibility of the outcomes over other countries is not unlikely under the condition of comparable authority structure and perceived quality of the OHS officer. This is confirmed in the only study we found which is comparable to ours, namely a survey among German white collar workers (n = 6,331), which shows a comparable range of preferences for the occupational physician (problems defined as individual, medical and work-related) as well as positive associations with better knowledge and appreciation of the OHS.
CONCLUSION

Workers' intention to use the OHS varies most strongly per type of problem: only for problems that are perceived as individual, obviously medical and work-related, is the occupational physician primarily preferred as an adviser. The line of supervision is mostly preferred for problems that are considered as collective or not specifically medical. The most important determinant of this pattern of workers' preference for utilization of OHS's is assumed to be the authority structure in the company (the chance to bring about the desired changes and minimize negative sanctions), that seem to be a rather stable condition in the industrialized world. The degree of preference for the OHS, however, increases when workers' attitude towards the occupational physician is more positive.

While actual utilization of the OHS was clearly determined by the organization of the services and workers' experienced health status, the intention to utilize OHS's is not. This implies that this variable should be considered as a totally independent predictor of utilization of health services, a finding which is in line with the theories on help-seeking-behaviour as quoted in the introduction. Therefore, when occupational health programmes are implemented in practice, attention should not only paid to organizational and instrumental prerequisites, but to a cost-benefit assessment of workers' intention to utilize the OHS. This should be considered a decisive factor for the success of an OHS.

REFERENCES