

Short Communication

Significance of Referrals to Medical Institutions as Occupational Health Services

Takashi MUTO¹, Koko KUNITSUKA², Katsuko TANIYAMA³ and Hiroshi MOMOTANI³

¹Department of Public Health, Juntendo University School of Medicine, ²Health Insurance Society, Asahi Shimbun, ³Health Care Department, Asahi Shimbun

Key words: Occupational health services, Needs survey, Employee needs, Occupational physician, Medical referral

Introduction

Occupational physicians (OPs) play a major role in the provision of occupational health services (OHSs) in Japan. Although the functions expected of OPs have been stipulated by the Industrial Safety and Health Law¹⁾, the roles of OPs have been reviewed with the aim of improving OHSs in the future²⁾. These reviews have been conducted primarily from the point of view of occupational health professionals or companies. According to social marketing theory, customer satisfaction is a critical factor in evaluating the effectiveness of OHSs³⁾. Optimal provision of occupational health services requires that local consumer needs are identified and quantified. Needs surveys, however, have rarely been conducted in Japanese occupational health settings. This study was conducted to clarify employee needs concerning non-work-related occupational health services.

Methods

The subjects of this study were all of the employees (n=10,314) of a newspaper company that had five head offices in Japan. A questionnaire survey was conducted in 1996 using the intra-company mail service on the occasion of the company's annual health examination. Because the survey was sponsored by a health insurance society whose primary interest was the prevention of non-occupational diseases, questions were concerned only with non-work-related health services. The questionnaire consisted of 25 multiple-choice questions in six categories: one item on the preferred components of non-work-related health services, 6 items on health promotion programs, 7 on lifestyle, 4 on stress management, 2 on perception of diseases and health status, 1 on health information and 4 on demographic items. The

questionnaire was answered anonymously. In this paper, data relating to the preferred components among 9 non-work-related health services are presented. The data were analyzed with the Statistical Analysis System (SAS) computer software package. The chi-square test was used to identify significant differences between categories.

Results

We received 5,793 replies, for a response rate of 56.2%. Fifty-one replies that contained no answers were excluded from the analysis, yielding an effective response rate of 55.7% (n=5,742; male: 83%, female: 17%).

Among the various health services provided as OHSs, referrals to medical institutions in the case of developing diseases were most preferred by both male and female employees (Table 1). Among male employees, there was no significant difference in the percentage of employees who preferred referrals to medical institutions among age groups, but female employees in their 20s had a lower percentage than those in their 40s. Irrespective of gender and age, the second most preferred service was health counseling after health examination, followed by primary prevention of diseases (i.e., health promotion), explanation of the results of health examinations, health counseling on chronic diseases, and emergency medical services. Advice on post-retirement healthy life was of interest to male and female employees in their 50s. There was little need for advice on return to work after long absences due to illnesses, or counseling during home treatment. The percentage of employees who desired

-
- Q1. Which health services do you expect in our company?
(Three answers are permissible).
1. Guidance to prevent diseases
 2. Explanation of health examination results
 3. Health counseling after health examination
 4. Emergency medical services in the workplace
 5. Referral to medial institutions
 6. Health counseling on chronic diseases
 7. Counseling during home treatment
 8. Advice on return-to-work after long absence
 9. Advice on post-retirement healthy life
 10. Others ()
- Q2. Do you feel physical fatigue?
1. Much
 2. Some
 3. Little
 4. No
- Q3. Do you feel mental fatigue?
1. Much
 2. Some
 3. Little
 4. No
- Q4. Do you feel anxiety about chronic diseases?
1. Much
 2. Some
 3. Little
 4. No
- Q5.-Q8. Demographic items
(gender, age group, job category, worksite)
-

Fig. 1. Key questions in the questionnaire

Received April 7, 1998; Accepted July 2, 1998

Correspondence to: Takashi MUTO, Department of Public Health, Juntendo University School of Medicine, 2-1-1, Hongo, Bunkyo-ku, Tokyo 113-8421, Japan

Table 1. Percentages of non-work-related health services preferred by employees of a newspaper company, by gender and age group (Multiple Answers)

Health services	Male employees					Female employees						
	Total (n=4660)	Age group			P value	Total (n=939)	Age group			P value		
		20-29 (n=732)	30-39 (n=914)	40-49 (n=1239)			50-59 (n=1772)	20-29 (n=511)	30-39 (n=185)		40-49 (n=128)	50-59 (n=114)
Referrals to medical institutions	59.7	55.7	60.4	60.7	60.3	0.127	59.4	54.8	61.6	73.4	60.5	0.002
Health counseling after health examination	52.5	51.6	52.5	53.4	52.2	0.871	49.7	50.1	48.1	50.0	50.1	0.963
Primary prevention of diseases	45.6	51.0	46.4	45.1	43.3	0.005	43.7	47.6	45.4	39.1	28.1	0.001
Explanation of health examination results	37.0	48.0	41.8	34.7	31.6	0.001	43.5	50.1	41.1	31.3	28.1	0.001
Health counseling on chronic diseases	29.5	23.8	29.1	31.4	30.8	0.002	27.3	26.0	29.1	27.3	29.0	0.825
Emergency medical services in the workplace	20.5	32.4	26.2	18.7	14.0	0.001	26.7	28.6	31.9	20.3	17.5	0.012
Advice on post-retirement healthy life	19.7	3.4	5.4	17.1	35.6	0.001	8.5	3.9	3.2	11.7	34.2	0.001
Advice on return-to-work after long absence	9.6	14.8	10.2	11.6	5.8	0.001	12.4	13.9	9.2	13.3	9.7	0.296
Counseling during home treatment	3.6	3.7	3.8	3.4	3.7	0.956	4.4	3.7	5.4	3.1	7.0	0.337

Table 2. Percentages of non-work-related health services preferred by employees of a newspaper company, by subjective health status indicator (Multiple Answers)

Health services	Anxiety about chronic diseases					Physical fatigue					Mental fatigue				
	Total (n=934)	Much			P value	Total (n=1086)	Some			P value	Total (n=1348)	Much			P value
		Little	Some	No			Little	Some	No			Little	Some	No	
Referrals to medical institutions	57.6	61.5	59.7	54.8	0.020	59.7	59.7	59.6	58.5	0.990	58.4	60.3	60.1	59.4	0.674
Health counseling after health examination	55.0	53.4	49.8	48.3	0.013	51.4	52.8	49.7	54.6	0.309	53.4	52.2	50.3	52.1	0.506
Primary prevention of diseases	43.2	45.7	46.4	45.0	0.450	38.6	47.2	47.1	42.1	0.001	43.1	46.0	48.0	39.3	0.025
Explanation of health examination results	33.3	36.6	41.9	44.8	0.001	37.9	38.4	37.9	39.9	0.943	37.1	38.8	37.2	43.4	0.263
Health counseling on chronic diseases	38.2	31.4	24.4	19.3	0.001	33.7	29.4	25.5	25.7	0.001	33.9	29.3	26.2	19.6	0.001
Emergency medical services in the workplace	17.6	19.9	24.9	28.1	0.001	22.4	20.8	23.3	22.4	0.365	22.3	21.5	20.5	25.6	0.384
Advice on post-retirement healthy life	23.9	19.3	13.9	9.3	0.001	18.5	17.3	18.6	18.0	0.693	15.8	17.6	21.1	17.4	0.009
Advice on return-to-work after long absence	9.5	8.8	12.0	12.8	0.002	12.3	9.2	10.6	8.7	0.024	12.2	9.5	9.1	10.1	0.029
Counseling during home treatment	4.5	3.2	3.7	5.0	0.125	3.9	3.7	3.9	3.8	0.978	4.6	3.1	4.4	3.2	0.048

Much: Feel much anxiety (fatigue), Some: Feel some anxiety (fatigue), Little: Feel little anxiety (fatigue), No: Feel no anxiety (fatigue)

primary prevention of diseases, explanation of health examinations, and emergency medical services was higher in younger age groups than in older ones.

Table 2 shows the needs of employees for OHSs in relation to three subjective health status indicators: degree of anxiety about chronic diseases, and perceived degrees of physical and mental fatigue. Among the four responses concerning physical and mental fatigue, there was no significant difference in the proportion of employees who preferred referrals to medical institutions. Employees who felt much or some anxiety about chronic diseases were more likely than those who felt little or no anxiety to prefer health counseling after health examination, health counseling on chronic diseases and advice on post-retirement healthy life. Explanation of the results of health examination and emergency medical services in the workplace were preferred by employees who felt little or no anxiety about chronic diseases. Employees who felt some or little physical or mental fatigue were more likely than those who felt much or no such fatigue to prefer primary prevention of diseases. Health counseling on chronic diseases was preferred by employees who felt much or some physical or mental fatigue than by those who felt little or no such fatigue.

Discussion

It is of interest and unexpected that referrals to medical institutions were given such a high level of approval, being ranked as the most preferred component of the non-work-related health services, irrespective of gender, age groups, level of anxiety about chronic diseases, and level of physical or mental fatigue. Referrals to medical institutions have not traditionally been considered a primary function of occupational health services¹⁾. Considering that the same finding has been reported in New Zealand⁴⁾, however, this may be the area in which employees expect the most from OHSs. It is easy to

understand that employees who are developing diseases or who require close examination expect to be referred to reliable medical institutions or physicians. This expectation, however, may reflect a lack of reliable family physicians whom sick employees can consult without hesitation.

In order to meet the expectations of such employees, OHS personnel need to collect appropriate information on specialists or on specialized hospitals. On the basis of this information, they need to develop and maintain close relationships with the institutions or physicians to which employees wish to be referred. Among OHS personnel, OPs are considered to be most suitable for this task, as most referrals are to physicians. OPs spend a certain amount of time and energy in collecting information on specialists or hospitals and in developing and maintaining close relationships with them, in addition to the time required for coordination and writing letters of referral. This study suggests that such time should be guaranteed for OPs.

Since the subjects in this study were all employees of the same company and the response rate was fairly low, caution should be exercised in making generalizations based on the results of this study.

References

- 1) Ministry of Labour. Labour laws of Japan. Tokyo: The Institute of Labour Administration, 1995.
- 2) Japan Employers Foundation. Tasks and direction of occupational physicians: for the promotion and consolidation of occupational health. Tokyo: Japan Employers Foundation, 1993 (in Japanese).
- 3) Blair JE. Social marketing: consumer focused health promotion. *AAOHN J* 1995; 43: 527–531.
- 4) Dryson E. Preferred components of an occupational health service for small industry in New Zealand: health protection or health promotion? *Occup Med* 1995; 45: 31–34.