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HEART DISEASES AND LABOUR ASPECTS OF SECONDARY PREVENTION

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ABSTRACT

The authors studied systems for evaluating the working ability of patients suffering from heart diseases along two main lines. They first analysed variations of all psychophysical components of interest for labour, deriving from the most frequent heart diseases affecting persons during their active period. They also examined certain fundamental work performances according to their individual components, in relation to the psychophysical parameters considered. The analysis was carried out on the basis of a method proposed by the first-named author which allows the quantification of the individual components of single work performances.

On the basis of their evaluation of these elements and their interrelation, the authors make various suggestions regarding organization of work and planning of work systems in order to reduce the harmful effect of certain working conditions on heart diseases.

In the modern complex organization of work conditions, the problem of subjects suffering from heart disease while still of working age (from 16 to 60) has not yet been satisfactorily solved, though the question has for a long time attracted the attention of scholars all over the world.

Within the limits of the general problem, we must take into consideration that the life of workers suffering from a heart disease is conditioned both by the natural development of the disease and by the work environment. Subjects suffering from heart disease are faced with great difficulties when resuming work but they encounter even greater difficulties when looking for their first job, because they are obliged to choose a particularly quiet job in order to avoid a worsening of the disease.

Trying to find a way to help these people we started from the idea that the key to this burning problem may be to adjust the work to the heart disease patient, especially to those who have contracted the disease during employment. To put this plan into effect might seem an utopian scheme but it certainly is worth spending time and effort on its realization.

Statistical figures for the last thirty years show that more than 50% of the subjects with ischemic coronary disease have returned to their previous jobs, while only a few of them have been unable to work again. According to our statistical information, about 300 chronic cardiopathic subjects belong to four observed categories (workmen, businessmen, teachers and employees) who have been scientifically observed since 1973. Only 62% of them have been able to resume their previous jobs to the benefit of their cardiopathy. However, there are subjects who after resuming work have asked to be superannuated.

The health state of the respective subjects – according to our clinical information and subjective evaluation – is shown in Table 1. We are fully aware that our information is not complete, and therefore we emphasize the necessity of intensifying research in order to give cardiopathic subjects a greater possibility to become reinstated in their previous jobs.

TABLE 1
Health condition of subjects reinstated or not reinstated, in their previous jobs (in per cent).

Health condition	Reinstated	Not reinstated
Perfect health	20	2
Good health	38	8
Modest health	9	10
Aggravation	4	15
	1	3
Total	62	38

Teachers, employees and businessmen are fully reinstated in their previous occupations. Workmen, however, are less lucky, because their kind of work requires a considerable amount of physical energy (Table 2) and so they feel discouraged and live in a state of constant worry and anxiety. The problem was discussed at the congress in Cortina d'Ampezzo in 1976 and it was agreed that machines are always planned so as to suit only workers in perfect health, without taking into consideration what could be done for workers weakened by heart disease. The environment of these workers must be especially considerate towards them, while we, as scholars, realizing their problem, must try and

TABLE 2
Percentage of subjects reinstated or not reinstated, in their previous jobs, according to profession.

Profession	N	Reinstated		Not reinstated	
		N	%	N	%
Workers	124	60	48	64	52
Businessmen	85	47	55	38	45
Employees, teachers	91	79	87	12	13

introduce changes in the existing working system, since working conditions have a decisive influence on their "optimum" performance.

These people are affected by their work in varying degrees depending on how much cardiac reserve they have, how far their cardiopathy has progressed, whether they suffer from some other disease, and how old they are.

Cardiac reserve can be evaluated by means of a cycloergometer, a strain test of the rectangular kind (at least 15–20 min) and by means of gradual tests which make it possible to determine the maximum bearable energy consumption.

In connection with this it should be pointed out that a strain registered by the cycloergometer at 100 watts corresponds to a work strain of 6.25 cal/min. Wood-cutters, navvies, miners, etc. do extremely heavy work. The energy they spend in working is close to the just mentioned value registered by the cycloergometer. By means of the heart echocardiographic test, we obtain the exact assessment of the valvular functions. Let us stress again: cardiopathic subjects need much care while working. They must avoid all fatigue fixed components (heavy physical work), while the employer should be made to understand that these workers must be assigned work which will enable them to acquire the necessary skill without putting on them too great a strain. They also must avoid places where there are noisy machines, poor light, a bad and dusty atmosphere, etc. Every work that requires special carefulness, effort of concentration, or great responsibility should be kept at a minimum.

What we have tried to explain is that work is not harmful or traumatic for a cardiopathic workman if it is kept in proper proportion to his actual working capacity.