

SICKNESS ABSENTEEISM:

A PRELIMINARY STUDY.

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SICKNESS records in industry are becoming of increasing interest. Firms having a well-staffed and well-equipped medical department are naturally desirous of knowing the results of its operation, and it is disconcerting to some to find that the expense of the medical branch increases year by year, and *pari passu* the sickness absenteeism, while with others the reverse happens. Explanations vary; it may be that, as the medical work becomes more effective, people are discovered who need treatment, but who in the absence of such a department would carry on until overcome by some serious disease;* on the other hand, workers inclined to slackness may take advantage of an inexperienced or overcautious medical officer.

The difficulties of obtaining adequate standards of comparison and, even when records are available, of interpreting the results have been discussed in a report[†] to the Industrial Fatigue Research Board.

This paper presents the results of a preliminary study of the sickness records of a few firms. We have not attempted to deal with the data available to the various approved societies; we have studied particular firms in order to bring into relief individual problems masked in such data. The firms in question all had medical and welfare departments, and employed large numbers of men and women of the same age groups; some were predominantly clerical, while others, besides clerical staffs, included factory workers, maintenance staffs, selling staffs, etc. The figure used for comparative purposes was the average number of days lost through sickness per year per 100 workers. This is crude, but useful practically.

A study on this basis of about ten firms revealed some striking differences and suggested some serious problems. The range proved to be unexpectedly wide even within the narrow limits of this survey, and varied from two days per worker per annum in one firm to eighteen days in another; there is also a tendency for the remainder to cluster round those two extremes rather than to form a series. This phenomenon may be due to the limitation of the sample; we have no decisive evidence as yet.

In the case of three firms situated in different towns, each with at least four departments doing different classes of work, data were available for working out the monthly variations. Each department, with two exceptions, averaged more than 500 workers. While the actual amount of sickness varied from firm to firm, and from department to department within the same firm, the seasonal variations were of the same type throughout. From about the beginning of March to the end of August, with slight individual variations, there is a gradual and significant decrease in the sickness; from August onwards there is a gradual increase. This variation is true of clerical workers, shop assistants, factory workers, workroom staffs, and general staffs—that is, engineers, transport workers, cleaners, etc. In the case of those firms where medical diagnoses are available the increase is largely accounted for by influenza and allied disorders, the other ailments being fairly distributed throughout the year.

Comparing different departments within the same firm we find significant differences. In two large stores in different towns the workroom staff[†] has less sickness than either the clerical or the selling staff. This is in line with the very low sickness rates in some factories.

Although as yet we cannot account for these differences, the following points are worthy of consideration:

1. It is frequently asserted, (a) that the factory and workroom make greater demands on the physical health

of the worker, while the office demands more intelligence, so that the physically strong children go to the factory and the less robust to clerical work, and (b) that the clerical worker is more intelligent. This assertion, though decidedly popular, distorts many facts. Much factory and workroom work is quite light and physically unexacting, and requires for its successful performance quite as much intelligence as do many forms of routine clerical work. Selection does, however, take place in some schools in so far as the children who are better at examinations are often advised to take up clerical work, and in some factories we have interviewed workers who say they would have taken up clerical work had they been able to pass examinations. If it were true that those who could pass examinations were mentally superior and physically inferior to those who could not, then it might be that the factory and workroom selected the physically, as opposed to the mentally, superior, or rather that the range of choice was affected by the absence of the brighter children who had gone to clerical work. The degree to which this selection is operating cannot be determined. Experience of workers in modern factories and in offices indicates that the difference in social class, education, and intelligence is less than is commonly supposed. The clerical occupations, it is true, may be attracting those who wish to be "genteel," and the mental conflict involved may add to the stress of life and play its part in determining sickness.

2. There may be greater satisfaction to the worker who is actually producing something, or organizing its production, than to the clerk who records the results of the work of others. There is a considerable difference in experience between actually making 20 as against 200 articles, and recording in a column 20 or 200—a difference of time, muscular activity, emotional excitement, etc. Certainly, so far as we have been able to get evidence, the clerical worker tends as life goes on to become more dissatisfied with his work than does the producer. Some types are more likely than others to be thus affected.

3. With the shop assistant, as compared with the clerical and workroom worker, there enters another factor. Unlike the others, he is always in contact with an incalculable variable—namely, some other person. Like the telegraphists and telephonists (both of whom have a high sickness rate), he is always adjusting to some other person. Even machines have moods, and raw material is not always up to standard, but there is a limit to the possibilities of variation—a limit easily learnt by the machinist. The salesman, however, has to be constantly adjusting to an almost limitless range of variation in his customers. This adjustment is a source of interest to some people, but certain types may find in it considerable strain, which may find its expression in sickness.* The man or woman who reacts emotionally to the reactions of a customer, or who feels a sense of guilt if he fails to please, or who worries at night over the work of the day, is more likely to break down as a shop assistant than as a workroom worker.

4. The borderline between sickness and health is a narrow one, and no observer can fail to see mental factors operating as well as physical. In one department of a large establishment were two rooms containing an equal number of workers, selected by the same tests and doing the same work; the head of one room was competent and mentally well balanced, the head of the other was nervous and difficult. Towards the end of a week during a mild influenza epidemic about 10 per cent. of the workers of the one room were away and over 80 per cent. of the other. It is true it might have been a chance occurrence, but in the light of the known effect of the particular persons in charge one may at least consider whether mental dissatisfaction had not played a part in determining the borderline people.

Types of authorities who are irritable, difficult, or somewhat overwhelming are not a negligible factor in determining absenteeism, particularly where the conditions of work involve practical security of tenure.

* Although this depends upon the assumption, not yet established, that attention devoted to trivial illness in adults does actually reduce the incidence of serious disease.

† The workroom staff is occupied in a wide range of activities comprising all branches of the sewing trades, some engineering, cookery, etc.

* The selling staff might be supposed to be more in contact with infection than the workroom staff; when, however, it is considered that a worker in a factory or workroom may be in contact with hundreds of others the apparent difference is not so real. Nor is the proportion of infectious disease higher in the selling staff.

No one wants to keep a sick person at work, but prevention of sickness by any means available is a good thing. A "breakdown" may conceivably bear some relation to being "fed-up."

NATURE OF THE SICKNESS.

So far we have considered the amount of sickness; in some cases it has been possible for us to compare the medical diagnoses. Such diagnoses would in all cases be made by a large number of different panel doctors in different neighbourhoods, so that no one doctor's fads of nomenclature can be represented. We have only considered the diagnoses for people on long sick leave—that is, over thirty days. These show extraordinary diversity, not only in the gross amount of illness, but in its nature, as indicated by its diagnostic classification. Here are the details of cases involving long sick leave during one year in two firms:

Firm—F. C.		Firm—H. W.	
Days Lost.	Diagnosis.	Days Lost.	Diagnosis.
A. 222	Sarcoma of ilium.	A. 278	Dyspnoea and nervous debility.
B. 126	Motor accident.	B. 243	Pyrexia, hydronephrosis.
C. 108	Pulmonary tuberculosis.	C. 181	Cough, high blood pressure, bronchial catarrh.
D. 98	Renal calculus; operation.	D. 159	Influenza, influenza debility, nervous debility, nervous exhaustion.
E. 90	Pulmonary tuberculosis.	E. 156	Influenza and pleurisy.
F. 72	Appendicitis; operation.	F. 140	Rhinitis.
G. 48	Cold; abscess of thigh.	G. 124	Nervous debility.
H. 43	Duodenal ulcer; operation.	H. 123	Nervous breakdown.
I. 42	Influenza.	I. 109	Cardiac and nervous overstrain.
J. 38	Motor accident.	J. 105	General debility.
K. 33	Appendicitis; operation.	K. 94	Debility.
L. 30	Influenza.	L. 92	Debility after appendicitis, influenza, and lumbago.

Average days' sick leave per annum for men and women = 3.6.

Average days' sick leave per annum = 7.7 for men and 14 for women.

It is clear that there is considerable difference between the two firms, though both do the same kind of work, and both employ numbers of men and women. H. W. is remarkable for the number of diagnoses of the type called nervous breakdown, whereas that type is absent in F. C. With regard to these two firms we are able to throw some light on the difference.

In the course of an investigation into telegraphists' cramp² we had occasion to inquire into the type of person who got cramp, and were able to show that a majority of cramp subjects were of a psychoneurotic or "nervy" temperament—that is to say, that fear in some form played an undue part in their mental make-up. Continuing the problem of the incidence of the psychoneurotic temperament in the ordinary population, we have investigated sample groups of workers in several firms, among which are F. C. and H. W. F. C. is remarkable in having a higher percentage of people free from psychoneurotic symptoms, and those with such symptoms had them to a lesser degree than any other group. This is correlated with the absence of psychoneurotic illness. Circumstances peculiar to the firm directed the attention of the medical staff to the importance of excluding the temperamentally as well as the physically unfit, and their success in that direction is verified by the results. A study of the medical diagnoses of H. W. showed that at least 51 per cent. of the long sick leave was psychoneurotic in character. F. C. had also a large percentage of employees—84 per cent.—who said they were interested in, and satisfied with, their jobs. H. W. had only 60 per cent. who were satisfied.

So far we have not investigated any shop assistants, so we do not know to what extent, if at all, their relatively high sickness rates are due to the presence of psychoneurotics or to the nature of the work. It is

to be noted that although the variation within these few firms is great, both as to quantity and quality of the illness, yet all have good material conditions.

There are many problems in connexion with this subject, some of which are in the process of investigation:

1. What part is played in the mind of the doctor as well as of the patient by the knowledge that there is practical security of tenure? There seems to be a tendency in such a case for a lengthier convalescence than where the position is risky, and that is not always beneficial.

2. What conditions affect the so-called "nervous disorders"? What occupations are most suitable for a "nervous" person, or will he break down in any occupation whatsoever?

3. In firms where there is a yearly increase in sickness, why should that increase be in disorders of a psychoneurotic type and not in those of an organic nature?

4. In determining the incidence of disease, what part is played by the knowledge that "compensation" may be obtained? Where this factor has resulted in an increased rate, what type of person has been affected? What is the effect of allowing full payment for a fixed number of days?

5. Does the size of the firm make any difference? In a small firm a worker often feels more important, and knows that his work falls on someone else in the case of absence; he therefore may hesitate to stop away for trivial reasons.

6. Do people who do not stay away for trivial illnesses actually develop more serious illness than those who do?

REFERENCES.

- 1 Industrial Sickness Statistics. Fifth Annual Report, Industrial Fatigue Research Board, 1925.
- 2 A Study of Telegraphists' Cramp. Industrial Fatigue Research Board, Report No. 43.

FULMINATING DYSENTERY IN A CHILD, CAUSED BY B. DYSENTERIAE SONNE.

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SINCE Sonne (1915) first isolated and described the organism now generally associated with his name as a frequent cause of dysentery in Copenhagen, it has been very widely recognized in other countries. Thus its occurrence has been reported by d'Herelle, France (1916); Öhnell, Sweden (1917); Thjötta, Norway (1919); Mita, Japan (1921); Patterson and Williams, Australia (1922); Smith, Scotland (1924 and 1926); Channon, England (1926); and Nabarro, England (1927).

In several of the reports it is specifically stated that the disease commonly produced by the bacillus is of mild character. Thjötta states that the organism would be more frequently found but for the fact that the only symptoms are those of a mild diarrhoea which does not require medical attention. Fraser, Kinloch, and Smith (1926), in reporting 33 such patients in Aberdeen, none of whom died, state that while in exceptional cases the symptoms are of urgent description, in the "vast majority" of cases the disease is relatively mild compared with Flexner dysentery. The present case is therefore exceptional in regard to the severity of the symptoms and the rapidity with which death was brought about.

The patient, E. B., aged 10, was a strong and apparently robust schoolboy. He went to school as usual on the morning of September 8th, 1926, and at 10.30 a.m. vomited. He was sent home, and at 2 p.m. severe and frequent diarrhoea began, persisting until the evening, when the child appeared so ill that at 10 p.m. he was taken to the Royal Liverpool Children's Hospital. Death occurred at 3 a.m., September 9th—that is, sixteen and a half hours after the onset of the first symptoms.

On admission to the hospital the child was unconscious and dehydrated. Temperature 105° F., pulse 150. No stools were passed while in the hospital.

Necropsy, September 9th, 2 p.m. (eleven hours after death). The body was that of a well-grown boy of 10, but showing marked dehydration. The large intestine and lower part of the ileum were intensely congested, and contained reddish fluid and mucus. The mesenteric glands in the ileo-caecal angle were soft and red, and the Peyer's patches in the terminal part of the ileum were slightly swollen and red. The proximal part of the small bowel was practically unaffected. There was no ulceration in any part of the intestine. The thymus and other lymphoid tissues were normal for the age of the child.