Demographic and Job Characteristics As Variables in Absences for Illness

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ATTEMPTING to understand and deal with absence because of illness has caused researchers to stress its cost to industry and to business. Two facets of cost, cost to the worker and cost to the organization employing him, have been strongly emphasized (*1*, *2*). The medical approach to absence stresses the need to keep the worker healthy both on and off the job. This approach has included work safety programs, annual physical examinations, immunizations, and health insurance plans. In spite of this so-called global approach, little research is available on the social and cultural aspects of behavior surrounding absences because of illness. The term "absence" as used subsequently in this paper means absence from work which the employee attributes to illness.

I believe that absence behavior is, in considerable measure, a cultural and social phenomenon. This assumption does not deny that almost all people, from time to time, suffer from illnesses that are almost totally physiological, requiring them to restrict their usual activities; however, absence behavior is often influenced by many factors other than physical illness. Parsons (*3*) has defined illness as "a state of disturbance in the 'normal' functioning of the total human individual, including both the state of the organism as a biological system and of his personal and social adjustments."

Within Parsons' context, an employee may be said to be ill when he says that he is ill. The same degree of illness in two workers may keep one off the job and not impede the other in the least. Furthermore, a person's environment, both at home and in the office, may influence his decision as to whether or not he is ill. Should he decide that he is ill, he then embarks upon the "sick role."

The status of being ill (as opposed to the status of being well) is indeed vague. Illness is subjective in that it exists when a person says that he is ill, yet society clearly ascribes to persons with this status the obligation of attempting to get well and the privilege of not going to work, which can more or less be objectively observed. Thus absence behavior has many ramifications, and I shall attempt to deal with some of its sociological dimensions in this paper.

An organization within the Federal Government was the setting for the research. A two-sample approach was used. First, from alphabetically arranged personnel records, a 10 percent systematic sample was drawn and data analyzed to measure some of the dimensions of absence behavior. The sample size was 301 employees. With data from the first sample serving to identify so-called typical absence behavior, the second sample, a purposive one, was

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drawn to allow study of the extremes of absence behavior; that is, to allow both minimal and maximal use of sick leave (as measured by number of episodes) to be studied. All persons having an absence episode of more than 24 consecutive work hours (3 workdays) were eliminated from this second sample since, for study objectives, such a lengthy episode was assumed to be primarily physiological (it is recognized that exceptions to this assumption probably exist, but it is felt that an absence episode lasting 1 to 3 days or even less than a day is more likely to have its origin outside the medical realm of illness than is the lengthy absence episode).

The criterion for being maximal or minimal in absence behavior differed by sex, since the first sample showed women to have significantly more episodes of absence than did men. To be selected as having a high number of absence episodes in a calendar year, a male employee had to have at least five separate episodes of absence and at least three of these spells must have lasted exactly 1 workday. Similarly, to be selected as having a low number of absence episodes, a man had to have a total of no more than three absence episodes although the duration of these spells could vary between 1 and 24 hours.

Women, to be classed as having a high number of absence episodes, had to have at least eight episodes of absence and at least five of these spells had to be 1 day in duration. Women having no more than five spells of absence of which no more than three spells could be 1 workday in duration were selected as showing low levels of sick absence behavior.

The total purposive sample was composed of 128 employees. The sample restricted to men was composed of 26 high and 42 low absence male employees. The sample composed of women had 29 high and 31 low absence female employees. Analysis of the variables was by nonparametric statistics since a "goodness of fit" test (approximation to the normal curve) showed that episodes of absence behavior were not arranged in a parametric manner.

The particular nonparametric test used, the Mann-Whitney U test, was selected because it is one of the most powerful of the nonparametric tests. Further, it is ideally suited to determining whether two independent groups (in this paper, high and low absence groups) have been drawn from the same population (*4*). The results of the Mann-Whitney U tests are shown in the table.

Results of tests of significance on demographic and job characteristics of the sample

High-low variables by—	Mann-Whitney test statistics		Probability value
	U	Z	
Age, whole sample	1. 964	0. 21	[1]
Age, males only	504	. 52	[1]
Age, females only	423	. 37	[1]
Sex by spells of absence [2]	7. 607	3. 44	0. 001
Children, females only	108	2. 29	. 05
Education, whole sample	1. 288	3. 47	. 001
Education, males only	300	3. 10	. 01
Education, females only	373	1. 14	[1]
GS level, whole sample	1. 449	2. 69	. 01
GS level, males only	439	1. 39	. 05
GS level, females only	310	2. 07	. 05
Years in government, whole sample	1. 942	. 31	[1]
Years in government, males only	504	. 52	[1]
Years in government, females only	441	. 13	[1]

[1] Not significant.
[2] Not a high-low comparison. Males did not differ significantly from females in age, occupation, or length of service.

Demographic Variables

Age. Age was not significant in absence behavior. The duration of each episode appeared to be longer for older workers, but they compensated for longer absences by being absent less often than their younger counterparts. Apparently, other categories and statuses have more influence on absences than age. On the basis of the observation that there were no differences in absences by age, one can argue against the popular contention that the older employee is a poor risk because of his absences. Reports in the literature also substantiate the idea that the older worker is as likely, if not more likely, to be on the job than is the younger worker (*5*).

Sex. Women had more spells of absence than men. The assumption that such difference could be attributed to age differences between sexes was not substantiated since no significant differences in age were found between men and women. No clinical or physical evidence exists to support the assumption that women are more prone to illness or disease than are men; how-

ever, it has been found that women are frequently absent because of gynecologic problems (*6*). If comparative mortality of men and women of working age can be used as a measure of illness, women prove to be healthier than men (*7*).

Women, however, may have more episodes of absence than men because of the roles society assigns to them. Within our society women can, more easily than men, be ill because the idea of a woman "not feeling right, having a terrible headache," is socially sanctioned. Thus, women are "entitled" to be absent with greater frequency than men.

Analysis of the data also revealed that women with children were more likely to have a high frequency of absences than were women without children. This observation supports the contention that women's commitment to the family constellation results in higher frequencies of absence. Mothers are, at least theoretically, more often faced with role conflict than are women without children. Thus the roles of worker and mother come into conflict, and the result is the dominance of the mother role with the worker role supported by recourse to absence behavior.

Marital status. Marital status was controlled in this study; thus no original empirical research can be offered. However, there is ample evidence in the literature that marital status does influence absences and appears to do so differentially by sex. Married men, perhaps because of their commitment and obligations to home and family life, are absent less frequently than their single counterparts (*5*). Probably because of the same commitment, and the resulting role conflict already discussed, married female employees are absent more frequently than their never married counterparts (*8*). Thus marital status appears to be an important variable in absence behavior.

Education. Education as a variable in absence behavior served to distinguish between men with high and low frequencies of absences; that is, those men who were seldom absent because of illness were generally better educated than those who were frequently absent. However, it is probable that the number of years of schooling cannot be considered a potent variable in influencing absences. Education is intricately related to both job responsibility and occupational status, and it is probably these factors rather than education which are the more important variables in absence behavior.

Job Variables

Occupational status. Within the study, Government Service (GS) level measures occupational status; that is, the higher the GS level, the higher the status. Occupational status is felt to be an accurate measure, since salaries increase as GS level goes up. The study hypothesis was that the higher an employee's status, the lower would be his frequency of absences. In some respects absence behavior can be viewed as an opportunity system, and the opportunity to take leave is not equally distributed throughout the range of GS levels. The higher the GS level, the less the opportunity for using leave for illness. High GS level entails increased job responsibilities and obligations.

The hypothesis was borne out by analysis of the data. Persons in the upper GS levels showed less frequency of absences than did those in lower GS levels. This relationship was true for both male and female employees. This observation refutes the hypothesis that male employees have fewer absences than female employees because they have higher job statuses (GS levels). Apparently the conceptualization of absence behavior as an opportunity system is valid for the study of such behavior.

Length of service. The idea that frequency of absences is negatively associated with length of service in the Federal Government was refuted by the results of the analysis. This conclusion seems logical because the Federal Government is a large and complicated organization. It is a depersonalized bureaucracy not easily perceived as an institution which fosters and protects a value system of its own making; thus little group loyalty would be built up as length of service increased.

Occupation. There were no significant differences in absences among persons occupying different broad job categories. This matter, however, is worthy of further consideration. Only three categories of jobs were compared—clerical and administrative, mathematical and statistical, and health and related areas. These categories may be too broad to allow for distinction on the basis of frequency of absences.

Different categories of jobs may make different demands on the persons occupying them. The demands of some types of work may require the person to absent himself from the work situation more frequently than would the demands of other types of work. For example, an employee in a particular job may be under such pressure that he absents himself or withdraws to find at least temporary escape from the stresses of the job. Thus, a "withdrawal" hypothesis, a leaving of the work situation for a short period via the mechanism of absence, might be the means by which some persons are able to meet the demands of their jobs.

Conclusions

Being ill and absent from work is a behavior syndrome with many associated components. A few, the demographic and job variables, have been discussed, but there are many others. It seems clear, however, that industry would do well to extend its thinking on absenteeism beyond the physiological state of health or illness. A biological frame of reference is too narrow to explain the condition of being ill. Other elements, such as cultural and social variables, influence absence behavior and affect a person's decision to be well, that is come to work, or to be ill and stay away from work.

Summary

Frequency of absences because of illness was explored using, for the most part, a purposive sample of 128 employees of a large Federal organization. The feasibility of explaining absences in terms of sociocultural variables—specifically demographic and job variables—rather than as a strictly physiologically influenced phenomenon was tested. The data were analyzed by the Mann-Whitney U test.

Among demographic variables, men had significantly fewer episodes of absence than did women, and the absences for men decreased as education increased. Age did not serve to discriminate between persons with high and low frequency of absences. Women with children showed a higher incidence of absences than did their counterparts without children.

For job variables, frequency of absence because of illness decreased as job status (as measured by service grade or salary level) increased. Neither occupational grouping nor length of service in the organization was significantly related to absence behavior.

The research results support the contention that a biological frame of reference is too narrow to explain the condition of being ill and absent from work. Other elements such as cultural and social variables influence absence behavior, and industry would do well to extend its thinking on absence because of illness beyond the physiological state of health or illness.

REFERENCES

(1) Canfield, G. W., and Soash, D. G.: Presenteeism—a constructive view. Personnel J 34: 94–97, July–August 1955.

(2) Plummer, N.: Absenteeism in industry. Adv Management 25: 21–24, September 1960.

(3) Parsons, T.: The social system. Free Press, Glencoe, Ill., 1951, p. 431.

(4) Siegel, S.: Nonparametric statistics. McGraw-Hill, New York, 1956, p. 116.

(5) Kahne, H., Ryder, C. M., Snegiroff, L. S., and Wyshak, G.: Age and absenteeism. AMA Arch Industr Health 15: 134–147, February 1957.

(6) Wells, R. L.: The woman worker. Arch Environ Health 4: 439–445, April 1962.

(7) Enterline, P. E.: Causes of death responsible for recent increases in sex mortality differentials in the United States. Milbank Mem Fund Quart 34: 312–328, April 1961.

(8) Schwartz, L.: Factors contributing to the excessive use of sick leave. Industr Med 14: 646–649, August 1945.