

THE HEALTH OF BANK WORKERS

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Introduction

Although bank work differs in some respects from ordinary office work, the health problems of these two groups of workers are quite similar, if not identical. Both groups, therefore, may be classified under the general designation of clerical workers in contradistinction to industrial workers. The latter comprise a group almost twice the number of clerical workers and their health problems are not comparable.

It may be assumed, generally at least, that clerical work offers more protection against exposure to extremes of temperature conditions and to a variety of hazards of a more or less specific nature, such as dusts, gases and fumes, and various chemical substances often encountered in the industrial environment. While clerical work may be mentally fatiguing, little physical endurance is required and for this reason the assumption is sometimes made that individuals of subnormal physical condition tend to seek indoor office work. However, it is doubtful whether a comparison of the two groups based upon physical examination would disclose a preponderance of subnormal individuals in either group.

Clerical workers, although not exposed to direct health hazards

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as are industrial workers, may develop physical defects and diseases as a result of exposure to what may be considered indirect health hazards, such as defective illumination, inadequate ventilation, crowded quarters, and other environmental working conditions. Any attempt, however, to measure the influence of the working environment on the health of workers must be approached cautiously, because it must be remembered that the clerical worker usually spends but eight hours of the twenty-four on duty. Home environment, individual habits and pursuits engaged in after office hours must be evaluated. Furthermore, any measurement of environmental effects upon health is complicated by our failure to establish a concise and accurate definition of health or disease. The late Sir Clifford Allbutt, the distinguished professor of medicine at the University of Cambridge, once said, "Disease is the correlative of health and is incapable of a more penetrating definition." Neither health nor disease is clearly distinguished from each other at certain stages.

Nevertheless, we discern certain unfavorable environmental influences as causative factors in augmenting diseases and physical defects in varying degree according to circumstances. Among the important environmental factors from a health viewpoint are ventilation, illumination, seating, and personal service facilities.

Ventilation

Optimum temperature standards for health and comfort of clerical workers have not been satisfactorily defined. The existence of a single optimum temperature acceptable to any group of individuals is precarious. There are always some who prefer more or less heat depending upon the clothing worn, nature of work performed, individual physical condition, and, no doubt, upon many

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other factors. Therefore, it is desirable to maintain a physical air environment, whenever it is possible to do so, which more nearly meets the demand of the larger number of individuals, and the others, by adjustment of clothing, can accommodate themselves to the selected conditions.

The ill effects of the air of a crowded and poorly ventilated room are not caused by any poisons thrown off into the atmosphere from the human body, but are the results of physical changes in the air which include the temperature, the moisture content, and the rate of air motion. Comfort can be attained only by the proper adjustment of these three physical properties of the air. Temperature is the most important factor and frequently is the least difficult to control. A temperature range between 68 degrees F. and 72 degrees F. is generally accepted as the proper temperature for sedentary workers. This is particularly true when the relative humidity is neither excessively high nor excessively low, but averages about 40 per cent. Where no provision has been made for humidifying the air, it is not uncommon to find the relative humidity of offices during the heating season to be as low as 15 per cent. Under such circumstances, a temperature as high as 75 or even 78 degrees is required for comfort.

The air movement should be such as to cause no annoyance to the occupants and still be sufficient to effect an adequate air change. An air movement of about 25 to 35 linear feet per minute is usually satisfactory.

The control of ventilation in the average office appears to be everybody's business and nobody's responsibility. A common fault lies in opening the windows on a cold day when the room becomes overheated instead of turning down or closing off the radiator control.

In summer, most offices must depend upon increase in air movement

for cooling. This is attained either by natural cross window ventilation or by fans or both. Even where offices are provided with refrigerated air, it has been found impracticable to reduce the indoor temperature more than ten to fifteen degrees below the outside temperature under maximum outside conditions. This reduction, provided the relative humidity has likewise been reduced, gives a sufficiently favorable condition, and prevents too great a contrast between the inside and outside temperatures. Overcooling in summer is inadvisable, though perhaps not quite so undesirable as overheating in winter.

Illumination

Correct illumination, either natural or artificial, is essential. Much eyestrain can be avoided and greater accuracy of work attained by providing the worker with light of correct intensity, suitable quality, and so diffused and distributed as to eliminate glare and sharp shadows. The science of lighting follows very definite physical laws and the illumination of offices should be designed by an engineer who is thoroughly equipped to plan such installations.

Posture

Improper posture which may be due to a variety of contributing factors, notably poor seating facilities, defective lighting, bad habits, bad fashion, and lack of exercise, leads to physical defects and ill health. The essential features of a good chair, according to Wright* are:

"It should have a seat of a height permitting the feet of the occupant to rest on the floor or on a foot rest without excessive pressure of the chair seat against the thighs. It should have a relatively shallow seat permitting the occupant to rest snugly against the back. It should have a back offering support to the spine of the occupant, and, for females, with allowance below the back rest for the hips which are typically heavier and higher than those of men. It should either be adjustable or be available in different heights to meet the needs of individuals of different stature and weight. It is obvious that the same chair is not suited to the small slender girl weighing a hundred pounds or so, so common in New York offices, and to the

*Health of Office Workers, Wade Wright, M.D., The Proceedings of the Convention of the Life Office Management Assoc., October 6, 7, 8, 1927.

tall, somewhat powerfully developed woman found in large numbers in the Middle West. Office chairs must, as well, be of stout construction, of good appearance and fair in cost.²

Advisory measures for correcting bad habits and absurd fashions and for regulating an individual's exercise must, of necessity, vary for each individual and, generally, must be tastefully suggested. A few large organizations maintain posture clinics where selected individuals are taught simple corrective exercises under skilled guidance.

Personal Service Facilities

The necessity for certain facilities which contribute toward the welfare of the worker is so obvious that only mention of them is sufficient. These include the supply of drinking water, the manner in which it is kept available, the drinking facilities, the rooms and other facilities for eating lunches, the washing facilities, locker space for outdoor wraps, and general sanitary and toilet arrangements.

Special Conditions

Other special problems may present themselves, such as monotony of routine work, distracting effects of noise, and crowded working areas. These become the responsibility of the management and usually are not of a serious nature. In all fairness it can be said that the average executive provides reasonable working conditions for those whom he engages.

Causes of Illness

How much of the prevailing physical defects and ill health among clerical workers can be attributed to each of the items mentioned above, in order to determine its degree of responsibility, is manifestly difficult to evaluate. It is not possible to refine rates to the point where we can say

the elimination of a given factor will reduce illness by a definite amount. It is logical to conclude, however, that individual factors share in the results shown for the clerical group of workers as a whole and that each is entitled to a share of attention when corrective measures are under consideration. It is also permissible to conclude that the elimination of unhygienic conditions will in time bring a reduction in the amount of ill health and a reduction sufficient to make hygienic conditions worth while.

The extent of illness and its causes among different groups of workers from early times have been subjects of much interest and discussion. As long ago as 1713, Ramassini wrote at length on the nature of the maladies of clerks. He noted among other ailments various gastro-intestinal disorders, writer's cramp or palsy, and, particularly, severe headaches produced by the intense mental efforts exerted by clerks upon their work. Thachrah, in 1831, again directed attention to gastric disorders and the effects of a sedentary life in ill-ventilated rooms. More recently, due largely to the introduction of medical services in large mercantile and commercial organizations, more serious consideration is given to problems affecting the health of office employees. The medical personnel of these organizations is beginning to accumulate more dependable and significant statistical material pertaining to the prevalence of sickness among the employed.

Predominant among the causes of sickness is the common cold. In 1922 the United States Public Health Service published the results of a study of sickness among a group of 1,282 office workers and the report reveals that colds as a cause of absence were first in frequency and third in severity and grippe was second in frequency and first in severity. Florence A. Grant pre-

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Although men lost less time relatively than the women, the average number of days lost per case was greater. Of the more frequent illnesses, men lost more time per case than women for arthritis, common colds, gastritis, infections (surgical), neurasthenia and trauma and less time for bronchitis, headache, influenza, operations and tonsillitis. Generally speaking, this is also true for the two preceding years.

These few experiences just quoted will serve to indicate the chief sources of lost time and working capacity among clerical workers and argue for consideration of measures for the control of sickness.

Control Measures

Any program of control of sickness must include the periodic health examinations for the purpose of locating physical defects that are often removable or correctible and of discovering early signs of disease that were unknown to the individual at a time when remedial measures are effective and, thereby, in many cases, averting definite and finally chronic diseases. Although comparatively few banking institutions provide for physical examinations of employees, the benefits which accrue to the individual as a result of the health inventory, fully compensate for the small costs involved even though individually borne. From the standpoint of individual physical efficiency such examinations should be made at least once a year. The physical examination is of particular value to the man or woman approaching middle life, because such conditions as diseases of the heart, kidneys, and circulation, for the most part at least, all have their beginning in middle life or not long before that period. It is essential that indications of these diseases be discovered early in order that they may be removed or kept from progressing. As Mamassini reminds

us, "A danger foreseen is half avoided, a disease known is half cured."

The Research Division of the Milbank Memorial Fund^{*} in a statistical analysis of over 100,000 records of medical examinations of native born adult males in the United States presents in the following table a summary in qualitative form of impairments which decrease and rise slightly with age or markedly with age and those which show no general trend. A few impairments which rise and then decline are indicated with the asterisks.

^{*}Milbank Memorial Fund Quarterly Bulletin, New York Health Demonstrations, Vol. VIII, January, 1930, No. 1. New York City.

Genito-urinary	Gonorrheal lesions	Testicles hard, tender	Stricture urethra Enlarged prostate Frequent or painful urination Cystitis
Brain and nervous	Exaggerated reflexes	Ataxic gait	Sluggish reflexes (irregular, etc.) Positive Romberg
Endocrine	Enlarged thyroid Dysfunction thyroid Low specific gravity	Hyperthyroidism	
Urinanalysis		Pus Sugar Paralysis	
Miscellaneous	Mastoids		Castes Albumin Oedema Neuralgia, neuritis

Reaches high point in middle life

(Milbank Memorial Fund Quarterly Bulletin, New York Health Demonstrations,
Vol. VIII, No. 1, January, 1930, p. 4)

SUMMARY OF INDICIMENTS ACCORDING TO AGE

Group	Decrease with age	No General Trend	Slight Rise with age	Height Rise with age
Eye		Diseases of external eye or eyelid		Defective vision Eye ground changes Cataract
Ear	Otitis media	Wax in ears	Perforation of drum	Defective hearing Practically total deafness Perforation of eustachian
Nose and Throat	Defected septum Hypertrophic rhinitis Mucopharyngitis Frequent colds Enlarged, diseased tonsils	Infection nasal sinuses Atrophic rhinitis	Polyp, growths, ulcers Chronic laryngitis	
Respiratory	Tuberculosis		Abnormal signs not suggestive of tuberculosis	Emphysema Asthma
Teeth		Slightly infected gums		Pyorrhea Carious teeth
Heart				Enlarged heart Organic valvular Myocardial changes Intermittent pulse Functional nervous High blood pressure Arterial thickness
Blood vessels and pressure		High pulse Low blood pressure		Hypertrophy Varicose veins
Varicose veins, etc.		Varicose		
Stomach and abdominal	Tenderness region of appendix	Weak rings Bleat of stomach Acid stomach Gastric distress	Constipation Habitual use laxatives	Bernia Enlarged or hardening of liver Tenderness region gall bladder Duodenoduodenitis, ulcers Optic Hypertrophy

Exercise

Attention not infrequently is directed to the importance of daily exercise for the clerical worker. Though it is extremely difficult, to prescribe a system of exercises in a regular and uniform sequence which will meet the needs of all, it is sufficient to say that some appropriate physical exercises enjoyed by the individual should be indulged in daily. Exercise for conscience sake in which the mind and will do not participate is of little value. Excessive week-end physical activity, after a week devoid of all thought of healthful recreation, may even react harmfully and should be avoided. Swimming, hiking, tennis, golf, skating, horseback riding, and all outdoor sports are popular week-end recreations and are not to be denied to the clerical worker, although the participation should be moderate. Milder forms of exercise which stimulate the vital organs of the body so that they will function efficiently ought to be a part of the clerical worker's daily routine. Setting-up exercises for about ten or fifteen minutes each morning upon arising are well worth the effort. Instruction and guidance can be obtained through the courtesy of certain organizations interested in the promotion of health activities, which broadcast each morning, as part of their program, setting-up exercises suitable for the average individual.

Diet

Of great importance also to the sedentary worker is the subject of diet. Most of us have a tendency to eat food selected for the purpose of either building up or reducing weight and neglect to give consideration to quantity and to variety in diet which have much to do with proper nutrition. A greater proportion of nutrients is digested with a mixed diet than with a

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diet of a single food.

Body weight is best reduced by reducing the quantity of food rather than the variety of food, but never at the expense of omitting the morning meal. After the elapse of about twelve hours between the evening meal and breakfast the healthy stomach is as empty as it ever will be and is ready to receive food for transference into body heat and energy. Breakfast should consist of easily digested foods, such as fruit, cereals, eggs, and toast. Milk is preferable but a cup of coffee or tea will do no harm. Allow ample time to eat leisurely.

The Bank Executive

A word of caution might well be offered to the individual who is approaching or has passed his fiftieth birthday and is confined largely to indoor office work usually in an executive capacity. The octogenarian English physician, Sir George Cheyne, tells us that, "Every wise man after fifty ought to begin to lessen at least the quantity of his aliment, and if he would continue free from great and dangerous distempers and preserve his senses and faculties clear to the last, he ought every seven years to go on abating gradually and sensibly, and at last descend out of life as he ascended into it, even into a child's diet."

The man to whom this is addressed, if he has not already done so, must give serious consideration to a daily routine adjusted to his needs from which he should seldom deviate. While observing the general rules of hygiene, he will find it necessary to work out his own schedule of living, dividing each day into hours devoted to work, to recreation, and to rest. He must select articles of food, including fruits and vegetables, which he has found through

experience to cause him no digestive disorders. Mild exercise daily is desirable but never to the extent of causing him to become tired. Regularity of habits and deliberation of actions are golden rules of life and apply particularly to the man of advancing years.

By regularity of habits, it is assumed that he arises at approximately the same hour every morning; engages in some mild exercises for ten or fifteen minutes; next comes the morning toilet which includes a brief lukewarm bath and bowel movement; if one or two tumblers of water already have not been consumed, he does so as part of the routine; after dressing, follows the light breakfast consisting largely of fruit. The remainder of the day is given up to the daily tasks of business with only one interruption at approximately the same time each day for lunch. The lunch should not be elaborate. If possible, accompany a friend or two and talk about anything but business. Depending upon circumstances, a walk or other form of exercise may be enjoyed at the end of the afternoon's work, but a short rest before the evening meal is desirable. After dinner, which should be the most elaborate meal of the day and enjoyed in the company of family or friends, the evening may be given over to favorite diversions. Before retiring for sleep - at a regular time and not too late - a routine of preparation should be followed out. This routine includes the drinking of more water, another bowel movement, washing of face or body and brushing of teeth, and it is not a bad habit to finish the day by reading one or a few chapters of a good book which holds the interest.

By deliberation of actions is meant that an individual considers, meditates, ponders by himself any bodily activity requiring undue and sudden exertion. He never jumps out of bed at the sound of an alarm clock, but takes

time to adjust himself to the change by turning over in the bed and stretching; moving the arms and legs, thus milding stimulating the circulation of the blood. Obviously, every action involving muscular effort need not be so deliberate, but nevertheless should be carried out unhurriedly.

The observance of these few simple, yet not intolerable, rules of health will prolong one's years of usefulness and add to his enjoyment of life.

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