SICKNESS ABSENCE AMONG HOSPITAL NURSES

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During the year ended March 31, 1957, all absences from duty, whether for sickness or non-sickness reasons, were recorded systematically for student, trained, and other nursing staff employed in the hospitals of the United Oxford Hospitals and the Oxford Regional Hospital Board. Altogether 6,232 persons (732 males and 5,500 females) were observed in 103 hospitals having almost 15,000 beds. The detailed analysis of the results is available elsewhere*; the purpose of the present paper is to give a brief summary of the more important and interesting findings relating to sickness.

METHOD

Each absence was recorded on a proforma showing reference number, age, sex, marital status, employment, residence, grade of staff, duration of absence, and medical diagnosis or cause of absence. In order to estimate the population at risk, a census of the nursing staff was taken on a day half way through the survey period and similar information to that required for absences was recorded for all staff employed on that day.

The forms were completed mainly by matrons, checked by the hospital administrative staff where practical, and forwarded to the Regional Board's headquarters for analysis. The survey, which was carried out at no additional cost to the Board, ended on March 31, 1957.

A pilot investigation (Davies and Barr, 1956), covering the 6 months ending June 30, 1955, gave an opportunity to test the efficiency of the scheme and enabled those taking part to become familiar with the procedure. It is believed that a high standard of accuracy was achieved.

DEFINITIONS

It was convenient to group the nurses into four grades:

Trained. — Trained nurses, practising certified midwives, and pupil midwives undergoing Part I and II training.

Students. — Student nurses and pupil assistant nurses.

Others. — Enrolled assistant nurses, nursing auxiliaries, and other nursing staff engaged mainly on nursing duties.

Nursing Assistants. — Nursing Assistants in Mental and Mental Deficiency Hospitals. (The small number of nursing assistants employed results in only limited comparisons being made for this group.)

In analysis the indices of sickness recommended by the Registrar General's Advisory Committee on Medical Nomenclature and Statistics Sub-Committee (General Register Office, 1954) have been used. In this paper reference is made to two indices:

- (1) *Inception Rate (Spells).* — The number of spells of sickness which start during a defined period divided by the average number of persons exposed to risk during that period.
- (2) *Average Duration per Spell.* — The total of the entire durations of all spells of sickness ending during a defined period divided by the number of spells ending during that period.

These rates may be used in relation to all diseases (including accident or other violence) and total population at risk or in relation to individual diseases and to different sections of the population.

A "spell of sickness" is taken as "a period during which a person is sick on one day (or shift) or on each of a consecutive series of days (or shifts)". The duration of a spell of sickness "normally includes

* "The Health of the Hospital Nurse" (1959). Oxford Regional Hospital Board.

each of the consecutive series of days for which sickness is recorded". All spells reported were coded according to the Classification of Diseases of the World Health Organization (1948) and summarized in the 29 diagnostic groups set out in Table IV (below).

RESULTS OF INQUIRY

TOTAL SICKNESS ABSENCE

Sickness absences for all staff during the 12 months numbered 5,309, which was 85.2 per cent. of the total absences from all causes. The total number of days lost through sickness was 68,536, which, in terms of working capacity, is equivalent to some 190 full-time staff or an annual outlay of between £60,000 and £70,000.

Of the total spells of sickness, 4,803 related to female and 506 to male staff. Since the number of male staff is comparatively small, most of what follows relates to female nursing staff. When male and female absences are considered this will be made clear in the text and tables.

ABSENCES BY AGE GROUP

Apart from age, sex, and grade, it is of interest to consider nursing staff according to their residence, employment status, and marital status. However, most of the resident staff are single and full-time employees, while most of the non-resident staff are married and part-time. These three factors cannot be conveniently separated and here only residence is considered so that differences between residents and

non-residents may in fact reflect differences between single and married or between full-time and part-time.

In Table I, the inception rate (spells) is given for resident and non-resident female staff according to grade and age. The overall rate was highest among nursing assistants and lowest among trained nurses, though there was little difference between nursing assistants, other nursing staff and students. In each grade, the rate was higher for non-residents than residents and this held good at practically every age level. The difference between residents and non-residents was particularly noticeable among the young student nurses (roughly from 18 to 21 years of age), and it was also fairly well evident in trained staff aged 30–34 years and other staff up to the age of about 30 years. Apart from student nurses, who were mostly under 25 years of age, the rate in age specific groups tended to be lowest for trained staff and highest for nursing assistants, with other nursing staff occupying an intermediate position.

FREQUENCY OF SPELLS

Slightly more than a third of the female student nurses and other nursing staff had no spells of sickness absence during the survey year compared with over a half of the female trained staff. Just over 3 per cent. of the students had four absences or more against nearly 1 per cent. for trained staff and 4 per cent. for other nursing staff. The distribution of absences according to the grade of staff is given in Table II (opposite).

TABLE I
INCEPTION RATE (SPELLS) IN FEMALE NURSING STAFF, BY GRADE, RESIDENCE, AND AGE GROUP
(Note: To avoid decimal point inception rates are multiplied by 100)

Grade of Nurse	Residence	Inception Rate (spells) by Age Group (yrs)															Number of Staff at Risk*	
		18	19	20	21	22	23	24	25–	30–	35–	40–	45–	50–	55–	60+		All Ages
Student	Resident ..	66	88	96	87	103	94	63	88	117	64	100	200	—	—	—	89	1,342
	Non-Resident ..	104	210	174	169	93	191	156	121	106	167	75	50	—	—	—	114	246
	Both ..	68	98	107	126	104	111	79	96	113	95	42	100	—	—	—	97	1,588
Trained	Resident ..	—	—	76					54	45	39	37	31	29	42	29	48	998
	Non-Resident ..	—	—	107					94	103	67	62	60	70	85	45	80	1,012
	Both ..	—	—	90					73	74	53	52	47	50	62	36	64	2,010
Other ..	Resident ..	—	—	71					57	60	118	81	100	170	25	20	73	255
	Non-Resident ..	—	—	146					124	116	118	121	102	103	88	89	112	1,270
	Both ..	—	—	109					107	107	118	118	102	107	81	83	105	1,525
Nursing Assistants	Resident ..	TOO FEW OBSERVATIONS															54	50
	Non-Resident ..	—	—	142					122	113	137	134	115	113	96	94	119	319
	Both ..	—	—	109					103	109	126	124	117	111	93	60	110	369

Bold figures indicate rates calculated on less than twenty absences.

* Excludes one student and seven trained staff with incomplete information on residence

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TABLE II

FREQUENCY DISTRIBUTION OF SPELLS OF ABSENCE IN FEMALE NURSING STAFF, BY GRADE AND AGE GROUP

Spells of Absence	Total Staff	Grade of Staff			Age Group (yrs)								Not Stated
		Students	Trained	*Other	< 20	20—	25—	30—	35—	40—	45 +		
0	2,486	613	1,150	723	313	476	274	232	222	252	624	93	
1	1,874	590	610	674	278	526	221	163	162	132	392	—	
2	728	246	182	300	116	203	75	63	61	58	152	—	
3	264	89	57	118	45	71	24	27	26	27	44	—	
4	90	32	9	49	11	23	9	9	9	10	19	—	
5	39	14	6	19	2	12	6	5	2	6	6	—	
6+	19	5	3	11	4	4	2	4	2	1	2	—	
Total ..	5,500	1,589	2,017	1,894	769	1,315	611	503	484	486	1,239	93	
Per cent. Nil Absences ..	45.2	38.6	57.0	38.2	40.7	36.2	44.8	46.1	45.9	51.5	50.4	—	
Standard Error of per cent. Mean ..	0.67	1.22	1.10	1.12	1.77	1.32	2.01	2.22	2.27	2.27	1.42	—	
	0.87	0.99	0.61	1.05	0.94	1.01	0.85	0.91	0.87	0.84	0.76	—	

* Other includes nursing assistants.

A convenient method of summarizing the distribution in Table II is to consider the percentage having no sickness absence during the survey period. Among trained staff the percentage with nil absences was significantly greater than for either the students or the other nursing staff, the difference between the percentages in both instances exceeding ten times the standard error of the difference. On the other hand, there was practically no difference between the students and other nursing staff.

An analysis of the frequency of absence by age indicated that the percentage of nil absences was significantly lower ($P=0.05$) for ages 20 to 24 than for any other age group. After 30 years, as age increased, the mean number of absences tended to fall slightly.

DURATION OF ABSENCE

Almost a third of all absences for male and female nurses consisted of 1 or 2-day spells, while over a

half lasted for periods under a week (Table III). Short-term absences (*i.e.* 1 or 2 days) were slightly commoner among female nurses in the younger age groups, but this did not appear to be so for men. Remarkably little variation occurred between the sexes in the duration of absence. There was a slight, though insignificant, tendency for men under 25 and over 40 years of age to return to work earlier than the corresponding groups of women, but in the intermediate ages the trend was reversed.

An analysis of the absence by the day of the week on which the absence began (Fig. 1, overleaf) showed, not unexpectedly, that numerically more absences began on Mondays than on any other day of the week. It seems likely that some sickness spells starting on Sunday were reported as starting on the following day. There was a definite tendency for work to be resumed on Monday irrespective of the day of the week on which the absence started.

TABLE III

PERCENTAGE DISTRIBUTION OF SPELLS OF ABSENCE, BY LENGTH OF SPELL AND AGE GROUP

Sex		Male				Female			
Age Group (yrs) ..		<25	25-	40+	Total	<25	25-	40+	Total
Duration of Sickness Absence (days)	1	23.2	16.7	24.1	20.7	18.5	20.7	15.7	18.4
	2	7.2	16.3	11.3	12.9	14.8	11.5	11.4	12.9
	3	15.9	5.6	7.7	7.9	10.3	8.2	5.8	8.4
	4	5.8	3.3	1.5	2.9	7.1	4.1	3.3	5.2
	5	7.2	5.1	2.1	4.2	4.6	3.4	2.1	3.6
	6	4.3	5.6	3.1	4.4	5.0	3.5	2.7	3.9
	7	4.3	4.7	3.6	4.2	5.2	5.0	4.1	4.9
	8	4.3	5.1	0.5	3.1	3.7	3.5	4.7	3.9
	9	—	1.9	1.5	1.5	2.9	2.1	2.2	2.5
	10-	14.5	17.7	19.0	17.7	16.2	19.0	21.4	18.5
	20-	5.8	7.4	5.6	6.5	6.2	7.2	9.0	7.3
	30+	7.2	10.7	20.0	14.0	5.3	11.5	17.4	10.5
Total		100	100	100	100	100	100	100	100
* No. of Spells		69	215	195	479	2,044	1,398	1,355	4,797

* Excludes 27 males and 6 females for whom information was incomplete.

FIG. 1.—Length of absence in relation to day on which absence began, showing percentages which began on a specific day.

Absences also tended to favour 7 or 14 days' duration, but this tendency was not found for spells commencing on Wednesday, Thursday, Friday, or Saturday.

CAUSE OF ILLNESS

By far the most common single cause of absence was the common cold. No less than 17.3 per cent. of the medical absences for female nurses were due

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to colds (Table IV). A further 10.2 per cent. were caused by sinusitis, tonsillitis, and other throat complaints, 3.9 per cent. by influenza, 2.4 per cent. by bronchitis, and 2.4 per cent. from tuberculosis, pneumonia, and other respiratory diseases. Thus, just over a third of the medical absences were due to diseases of the respiratory system. Other relatively large groups were diseases of the stomach and duodenum, hernia and other abdominal conditions, and diseases of the skin and cellular tissue. Injuries and accidents numbered 249, to which must be added 92 absences due to sprains. Together all injuries and accidents accounted for 7.1 per cent. of all medical absences and ranked fifth largest (apart from the miscellaneous group) in number of spells.

In terms of incapacity, the most important group was injuries and accidents (including sprains) which accounted for a tenth of the total days lost. Next in order were sinusitis, tonsillitis, and other nose and throat conditions.

An examination of the inception rate (spells) by

age showed a decreasing gradient with age in the following diagnostic groups:

1. Infective and Parasitic Diseases.
11. Colds.
12. Sinusitis, tonsillitis, and other nose and throat conditions.
16. Dental conditions.
18. Appendicitis.
19. Hernia and other abdominal conditions.
22. Diseases of the skin and cellular tissue.

The inception rate (spells) tended to rise with age for the following diagnostic groups:

9. Diseases of the circulatory system (excluding varicose veins).
10. Varicose veins.
13. Influenza.
15. Bronchitis.

There was a decided peak in the rate in adult or late adult life in the following diagnostic groups:

5. Psychosis.
28. Sprains.

TABLE IV

PERCENTAGE DISTRIBUTION OF SPELLS OF SICKNESS AND DAYS ABSENT OF FEMALE NURSING STAFF DURING THE SURVEY YEAR, CLASSIFIED ACCORDING TO MAIN DIAGNOSIS

Survey Number	Diagnostic Group		Percentage of Total Spells	Percentage of total days sickness
	Short Description	International List Number		
1	Infective and Parasitic Diseases	040-138	2.7	4.0
2	Neoplasms	140-239	0.6	1.1
3	Allergy and Diseases of Endocrine System	240-289	1.6	2.4
4	Diseases of the Blood	290-299	0.6	0.9
5	Psychosis	300-326	1.3	3.3
6	Organic Nervous Disorders	330-369, 780-781	2.4	2.5
7	Eye Conditions	370-389	1.0	0.8
8	Ear Conditions	390-398	0.8	0.8
9	Diseases of Circulatory System (excluding Varicose Veins)	400-456, 461-468, 782	1.9	4.7
10	Varicose Veins	460	0.5	1.3
11	Colds	470, 783-3, 788-9	17.3	6.1
12	Sinusitis, Tonsillitis, and other Nose and Throat Conditions	471-475	10.2	7.6
13	Influenza	480-483	3.9	3.3
14	Tuberculosis, Pneumonia, and Other Diseases of the Respiratory System	001-008, 490-494, 510-521, 783-1	2.4	4.7
15	Bronchitis	500-502	2.4	3.6
16	Dental Conditions	530-539	1.9	1.1
17	Diseases of Stomach and Duodenum	540-545, 784	7.4	3.5
18	Appendicitis	550-553	1.1	2.6
19	Other Abdominal Conditions	560-617, 785	7.8	5.9
20	Genito Urinary System (female)	620-637	3.3	4.8
21	Complications of Childbirth, etc.	640-689	0.4	0.9
22	Diseases of Skin and Cellular Tissue (Boils and Abscesses)	690-698	5.3	4.0
23	Dermatitis and Eczema	700-716	1.2	2.2
24	Arthritis and Rheumatism	720-727	2.7	3.7
25	Other Diseases of the Bones	730-749, 787	3.0	4.8
26	Debility, Depression, Headache (otherwise unspecified)	790-792	5.2	6.5
27	Injuries and Accidents	N800-N839, N850-N999	1.9	2.5
28	Sprains	N840-N848	1.9	3.2
29	All Other Conditions	—	7.7	7.5
Total ..	Per cent.		100.0	100.0
	Number		4,828	61,105

Includes 25 instances with multiple diagnoses (i.e., cases where it was not possible to say which was the primary cause of illness).

The age-specific trend is given for the larger groups (*i.e.* those with total absences exceeding 150) in Table V. Colds (Group 11) affected the young more severely than the old, but the difference was not great. The peak incidence occurred at ages 20 to 25 years, though the average length of spell at this age was among the lowest of any age group. The average duration per spell of sickness was greatest between 35 to 54 years.

In the case of sinusitis, tonsillitis, and other nose and throat complaints (Group 12) there was a marked degree of association between age and inception rate (spells), the rate declining rapidly as age increased. The average length of the spell did not vary much between the ages, though there was some suggestion for absences to be slightly longer in the older ages. 65 per cent. of those aged up to 25 years returned to work within 7 days, compared with 53 per cent. for those aged 25 to 39 and 44 per cent. for those aged 40 and upwards.

The incidence of disorders of the stomach and duodenum (Group 17) tended to be slightly higher at the younger ages. The average length of absence was very short (under 4 days) in persons under 25 years of age, whereas it was nearly a fortnight for persons over 45 years.

The inception rate (spells) from skin diseases was

particularly high among students, and fell rapidly with increasing age. Whereas, in skin conditions like boils and carbuncles, the inception rate on the whole diminished with age, the rate remained much the same at all ages in dermatitis and eczema, with peaks at 25-29 and over 55.

Injuries and accidents (excluding sprains) occurred most frequently at the youngest and the oldest age groups. Sprains, on the other hand, increased sharply after 30 years of age, and declined again about 50 years.

The epidemiological pattern is summarized in Fig. 2 (opposite), which shows, for each age group, the seven diagnostic groups with the highest and the seven diagnostic groups with the lowest inception rate (spells) and average duration per spell. It will be seen that the inception rate (spells) was comparatively high throughout all or most ages for colds (Group 11), sinusitis, tonsillitis, and other nose and throat conditions (Group 12), diseases of stomach and duodenum (Group 17), other abdominal conditions (Group 19) and injuries and accidents (Group 27).

In contrast, the inception rate (spells) was comparatively low at practically all ages for neoplasms (Group 2), diseases of the blood (Group 4), ear conditions (Group 8), varicose veins (Group 10), and appendicitis (Group 18). The average length of the spell was generally high at all ages for psychosis

TABLE V
INCEPTION RATE (SPELLS), AND AVERAGE DURATION PER SPELL (DAYS) BY AGE GROUP, FOR SELECTED DIAGNOSTIC GROUPS IN TABLE IV

*Diagnostic Group Number	Index	Age Group (yrs)										All Ages
		<20	20-	25-	30-	35-	40-	45-	50-	55-	60+	
11	(a)	152	193	139	165	176	148	91	148	105	88	152
	(b)	4.2	3.9	4.7	4.5	5.6	4.9	5.4	5.0	2.9	5.0	4.5
12	(a)	134	125	93	80	72	60	53	60	35	40	90
	(b)	6.9	8.8	8.9	10.8	9.9	10.2	14.7	11.6	6.3	36.8	9.5
13	(a)	18	26	41	38	37	49	31	36	65	80	34
	(b)	11.0	8.1	8.4	16.4	11.7	11.4	9.4	9.7	15.6	10.0	10.8
17	(a)	59	87	95	56	48	64	31	62	70	24	65
	(b)	2.6	3.9	7.0	3.8	12.6	4.4	11.3	11.3	10.7	15.7	6.0
19	(a)	81	85	75	54	81	74	60	36	35	24	69
	(b)	4.2	7.2	10.0	10.1	14.4	11.8	13.2	18.1	13.6	11.3	9.5
20	(a)	16	38	25	50	25	35	31	23	5	8	29
	(b)	4.8	9.7	7.4	10.2	35.0	37.1	35.1	34.1	50.0		18.5
22 and 23	(a)	83	75	60	48	29	27	41	42	50	32	57
	(b)	7.2	8.9	15.2	14.2	10.9	14.2	19.0	24.2	20.9	13.0	12.0
27 and 28	(a)	74	73	57	57	71	73	80	59	73	12	62
	(b)	10.8	14.1	14.5	15.3	25.9	22.5	26.6	14.5	20.3	31.8	17.3
All Groups	(a)	905	1,025	858	911	870	848	780	831	755	616	878
	(b)	8.5	9.3	11.1	13.7	15.5	14.5	19.4	17.1	18.5	22.8	12.7

(a) Inception Rate (Spells) ($\times 100$). (b) Average Duration per Spell (days). * For key to Diagnostic Groups, see Table IV. Bold figures indicate rates based on less than twenty absences.

(Group 5), tuberculosis, pneumonia, and other diseases of the respiratory system (Group 14), and appendicitis (Group 18), whereas, in colds (Group

11), dental conditions (Group 16), and diseases of stomach and duodenum (Group 17), it was comparatively low.

FIG. 2.—Inception rates and average duration per spell, by age group and diagnostic group.

COMPARISON WITH OTHER POPULATION GROUPS

An assessment of the incidence of sickness among nurses was limited by the fact that very little comparable data were available. The two main sources of comparison used in this survey were the London Transport Executive (1956) and the Ministry of Pensions and National Insurance (1958).

The London Transport Executive provides a comprehensive analysis of sickness absence for various groups of their employees covering the years 1949 to 1952. For present purposes the comparison was based on Central Bus Male Conductors for the years 1949-1952 and Unmarried Female Clerical Staff for the years 1950-1952.

The information from other main source of comparison — the Ministry of Pensions and National Insurance — relates to the certificates of incapacity of insured persons in England and Wales for the year 1955/1956. These statistics are compiled in the course of administering the two main insurance benefits (sickness and injury) and together provide

a fairly complete picture of incapacity exceeding 3 days' duration. Insured persons consist mainly of employed and self-employed men and single women and about a third of the married women similarly employed; the main classes excluded are non-industrial civil servants, housewives, retired pensioners, most students, and all children.

The method adopted was to calculate the number of spells expected for each sex and age-specific group of nurses from the inception rate (spells) given in the two sources of comparison. The ratio of the observed number of spells to the expected number of spells provides a measure of comparison.

This analysis (Table VI) suggests that nurses were absent more frequently than would be expected on the basis of the experience of the staff of the London Transport Executive or the national insured population for infectious diseases, ear conditions, circulatory diseases (including varicose veins) and skin diseases (including dermatitis and eczema). On the other hand, there were fewer absences among nurses

TABLE VI

NUMBER OF SPELLS OF SICKNESS OBSERVED AMONG NURSES AND NUMBER EXPECTED ON THE NULL HYPOTHESIS FROM STAFF OF THE LONDON TRANSPORT EXECUTIVE AND FROM SICKNESS AND INJURY CLAIMS MADE ON THE MINISTRY OF PENSIONS AND NATIONAL INSURANCE

*Diagnostic Group Number	Number of Spells of Absence among Nurses (Male and Female)			Ratio of Observed to Expected (per cent.)	
	Observed	Expected		London Transport Executive	Ministry of Pensions
		London Transport Executive (1)	Ministry of Pensions (2)		
1	131	84.7	46.0	155	285
2	26	—	7.6	—	342
3	62	—	35.1	—	177
5	62	133.2	102.8	65	83
6	63 } 125	59.1 } 192.3	48.7 } 151.5		
7	28	52.8	20.2	53	139
8	29	25.0	19.9	116	146
9 and 10	106	63.0	57.8	168	183
13 and 15	294	753.1	470.3	39	63
16	41	—	27.4	—	150
18	55	—	29.7	—	185
22	195	126.6	86.8	154	225
23	56	37.0	32.5	151	172
24	115	140.6	135.9	82	85
27	195	—	105.4	—	185
28	83	—	30.5	—	272

(1) *London Transport Executive*: The expected sickness absence is based upon the sickness experience of Male Bus Conductors between 1949 and 1952 and on Female Clerical Officers (unmarried women) between 1950 and 1952.

(2) *Ministry of Pensions and National Insurance*: The expected sickness Absence is based upon the claims for sickness and injury benefit for the year 1955/1956.

• For key to Diagnostic Groups, see Table IV.

than expected for psychosis and nervous disorders, influenza and bronchitis, and arthritis and rheumatism. It was possible to compute the ratio for a few additional diagnostic groups based on the insured population and this, taken alone, suggested that spells of sickness were also higher among nurses for neoplasms, allergy and diseases of the endocrine system, dental conditions, appendicitis, and injuries and accidents.

As far as the comparison goes, and bearing in mind the relative size of the diagnostic groups, it would seem that nurses were particularly susceptible to infectious, circulatory, and skin diseases. For infective and parasitic diseases the number of spells of absence among nurses was over 56 per cent. higher than among staff of the London Transport Executive and nearly three times as high as among the general insured population. Diseases of the circulatory system and varicose veins were two-thirds higher in nurses than in the London Transport Executive employees and four-fifths higher than in the insured persons. Spells of sickness from diseases of the skin and cellular tissue were respectively 54 per cent. and 125 per cent. greater in nurses than in the staff of the London Transport Executive or the insured persons, while the corresponding figures for dermatitis and eczema were 43 per cent. and 63 per cent.

HOSPITAL DIFFERENCES

To examine how far sickness absence varied between hospitals a special analysis was made of nineteen hospitals employing 100 or more nursing staff. For technical reasons, the incidence of illness was based on non-infectious diseases and restricted to the first absence only. In analysing the duration of absence, attention was limited to one disease—the common cold—the only condition for which sufficient data was available. Colds which lasted more than 14 days were excluded, as they were most probably illnesses which had begun as colds and had been protracted for some reason not specifically reported.

No differences in the frequency of absence were found between hospitals beyond what would be expected to arise from differences between the categories of staff and the varying proportion of these categories in hospital. On the other hand, the length of absence varied significantly ($P < 0.01$) between hospitals.

DISCUSSION AND CONCLUSIONS

The analysis of the sickness absence among 6,232 nurses over a period of one year suggests that nurses are not subject to any excessive health hazard. This

conclusion, however, must be tempered by the reservation that the survey related to a comparatively short period of time (12 months), so that all adverse effects may not have had adequate time to make themselves felt. In the present instance, the survey period was free from epidemic outbreaks and, for this reason, the results are probably fairly typical.

The considerably higher inception rate (spells) found among non-resident students cannot be overlooked. Among the trained and other nursing staff the rate was also higher for non-residents than residents, but the differences were not nearly so marked. On the existing evidence it would seem that absences might be reduced appreciably by extending residential facilities for students especially those under 20 years of age. If additional accommodation is not available, then it would seem desirable, from the viewpoint of health, that students in their first 2 years of training should be given priority over trained staff for hospital living accommodation.

Nurses appear to be more prone to infectious, circulatory, and skin diseases than might be expected. The largest group numerically is that relating to diseases of the skin and cellular tissue including dermatitis and eczema, which accounted for approximately 6 per cent. of the spells of absence and the same percentage of working days lost. There would seem to be an urgent need for further detailed studies of these diseases among nurses with a view to formulating preventive measures.

Some importance is attached to the finding that, taking the composition of staff into account, the incidence of sickness absence did not vary between hospitals by more than could be expected to be due to chance fluctuations, whereas the average length of absence differed substantially between hospitals. The analysis does not encourage the hope of reducing the loss of labour through sickness by trying to reduce the frequency of illness (this does *not* take into account multiple absences), but it does suggest that the length of absence is susceptible to inter-hospital variations. This might prove a fruitful line for administrative action though there may be difficulty in bringing about any spectacular improvement.

That there is no common objective criteria for determining the duration of absence is well known and has been commented on by the *Lancet* (1957) in connexion with convalescence after hospital treatment. Some suggestion that this occurs among nurses is provided by the finding of an excess of absentees returning to duty on Mondays. Part of the differences between hospitals may, therefore, be due to differences between Medical Officers or General Practitioners in their approach to sick leave. On the other hand, it may be that the differences in the

average length of absence are related to the inherent structure of the hospital. The differences are sufficiently interesting to warrant further consideration.

Statistics of sickness absence, when collected over some time, are of considerable importance both medically and administratively. Medically, they give an epidemiological picture of disease which is essential for the formation of sound preventive programmes. Administratively, they provide an informative index to staff welfare and labour wastage. The anomalies and limitations of absence statistics generally have been considered by Buzzard (1954), and it is clear that further research has to be made into the best method of using such data. With the improvement of definitions and the development of statistical techniques, sickness statistics should form a useful source of information. To quote only two possible instances; on the medical side research could be made into the occurrence and spread of epidemics among hospital staff, while on the administrative side it should be feasible in time to set confidence limits to the inception rates at each hospital against which changes in policy could be measured objectively. Thus, in order to facilitate research into morbidity and the uses to which statistics can be put, it would seem worthwhile to record sickness absences for hospital staffs at periodic intervals.

SUMMARY

(1) Sickness absence occurring during the 12 months ending March 31, 1957, among 6,232 nurses employed in the hospitals of the United Oxford hospitals and the Oxford Regional Hospital Board have been analysed.

(2) The total number of sickness absences was 5,309, which is 85.2 per cent. of the total absences from all causes. The total number of days lost through sickness was 68,536.

(3) 38 per cent. of the female students and other nursing staff had no spells of sickness during the year compared with 57 per cent. for trained staff. 3.2 per cent. of the students, 0.9 per cent. of the trained staff, and 4.2 per cent. of other staff had four absences or more during the year.

(4) Sickness absence was greater among non-resident than resident staff. The differences were particularly marked for student nurses roughly under 20 years of age.

(5) The most frequent cause of absence was the common cold. A third of the total absences was due to respiratory complaints.

(6) The inception rate (spells) for female nurses for all illnesses combined tended to fall with age after 20 years. In contrast the average duration of absence tended to increase with age.

(7) Infectious, circulatory, and skin diseases appeared to be commoner among nurses than expected.

(8) Allowing for the composition of staff, the inception rate (spells) did not vary between hospitals by more than would be expected. In contrast, the average duration of absence varied significantly between hospitals.

(9) It is concluded that:

- (a) Residential accommodation for the young student nurse should be reviewed.
- (b) While nurses generally do not appear to be any less healthy than other groups of the population, the excess sickness absences from infectious, circulatory, and skin diseases deserves attention.
- (c) That causes of the variation between hospitals in the duration of sickness absence should be investigated.
- (d) In order to facilitate further research into the medical and administrative uses of sickness absence statistics in hospitals, all sickness absences for hospital staff should be recorded on a standardized form at periodic intervals.

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