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CONTENTS

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Editorial:

- Pillars of surgery in Triumph and disaster clinical research.
- Portal hypertension in children. Z. Al - Bahrani, G. Butrous and Z. Kassir.
- Serum uric acid levels at different stages of pregnancy. D. Singhvi, L. Noori, R. Al - Essa and P. Scharma.
- Evaluation of maternal urinary oestriol excretion, as an index of foeto - placental function in toxemia of pregnancy. H. Bakir, S. Rahman and M. Hilmy.
- Copper and iron in scalp hair and blood sera of patients with lichen planus. H. Abdel - Aal, L. El - Saaiee, H. El - Mahdy, M. Abdel - Aal and M. Tayeh.
- Primary mediastinal tumors, N. Elhassani, T. Al - Saleem and N. Alash.
- Embryonal Botryoid rhabdomyosarcomas. T. Al - Saleem, T. Al - Jumaily, N. Alash and A. Al - Naimi.
- Experimental research
- The adverse effects of excess vitamin A on the rats liver. M. Hilmy, A. Rasul, M. Hassanein and M. Elsayed.
- Effects of chronic hypervitaminosis A on the reproductive organs of male and female rats A. Rasul, M. Hilmy and R. Ahsan.

Epidemiological survey:

- The pattern of sickness absence in the Iraqi tobacco state company. H. Jamil. short communications
- Locked twins, unusual method of delivery. S. Al - Tai.
- Giant solitary colonic air cyst. I. Hatim, A. Tapoo, W. Gazala and Kh. Abdulla.

الاجازات المرضيه لمنتسبي المنشاه العامه للسيكاثر

الخلاصه

بينت الدراسه بان الاجازات المرضيه لـ ١٣٧٠ منتسب يعمل في المنشاه العامه للسيكاثر بان معظم الاجازات كانت مدتها تتراوح من يوم واحد الى ثلاثه ايام وان معدل الاجازات المرضيه للشخص الواحد في السنه كانت ٢٧٢ اجازة في حين كان معدل الايام المفقوده للشخص الواحد بسبب الاجازة المرضيه في السنه ٦٩٦ يوم عمل . لقد بينت الدراسه بان ١٧٢ % من الاجازات كانت بسبب امراض الجهمساز التنفسي وان اعلى نسبة من الاجازات اعطيت في شهر كانون الثاني واقل نسبة من الاجازات المرضيه اعطيت في شهر ميسس .

The Pattern of Sickness Absence In The Iraqi Tobacco State Company.

Hikmet Jamil *

SUMMARY

A cross sectional study of Sickness Absence was done among 1370 employees of the Iraqi Tobacco State Company. The male Workers were mainly in the age group of 30-49 years, While the female workers and the staff were of younger age group of 20-39 years. The majority of the spells of absence were of short duration (1-3 days). The inception rate (spells) and average days lost per person for all employees was 2.7 spells and 6.9 days respectively. The 17.2% of all spells of absence was due to diseases of upper respiratory system, while the percentage of spells was highest in the month of January and lowest in May.

INTRODUCTION

Hazard⁽¹⁾ pointed out that Sickness absence studies can be used as a tool for identifying behavioural features of group Of people which would not otherwise be recognised to spot poor environmental working conditions, which reflect poor management practices. Reid⁽²⁾ suggested that study can be used as a method of monitoring the health of an individual which allows identification of various factors to anticipate the possibility of a series of diseases, Others 3,4 pointed out the value of such a study in planning for primary prevention of diseases.

However, sickness absence studies is a complex phenomenon, the complexity arises from the large number of factors which affect absence from work^(5,6). Hogerzeil⁽⁷⁾, in the symposium on sickness absence pointed out that sex, age and occupation are the three main factors which affect

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-76-

absence indices, while various other factors such as medical, social and economic can also affect absence, but all these factors influence in different degrees, the decision of an employee to stay off work.

The aim of present study is to document the true extent, nature and pattern of sickness absence in the Iraqi Tobacco State company, comparison with other factories was not possible because no similar studies were recorded in other Tobacco companies in Iraq.

MATERIALS AND METHODS

The Iraqi Tobacco State Company is one of the three tobacco factories in Iraq. It is situated in Baghdad by the Tigris river about 10 Kilometers from centre of the city. The plant covers an area of 50,000 square meters. The maximum daily production during the period of this study was 20 million cigarettes. The factory operates a two shift system, and the normal working weeks is six days and the total working days were 308 in 1973. The total man power comprises of 1440 individuals, but the number of employees entering this survey were 1370 (1268 males, 102 females). There were 70 employees who were excluded from the study as their medical records were not available (34 employees) or they had not worked through out the whole year 1973 (36 employees). The employees were divided into two occupational groups, the workers and the staff for the purpose of this study. The workers (male and female) worked under specific environmental conditions while the staff employees (all males) worked under completely different environmental conditions. The workers were classified into male and female groups as sex is an important factor in the study of sickness absence (office of Health Economics - 1971). Table - 1 - shows the distribution of employees by age groups and sex. Table - 2 - shows the number of employees in each group by duration of employment in years.

The factory doctor who was working full - time was responsible for granting sick leave and he also confirmed any sick leave obtained from another doctor or hospital. The medical records were kept in the medical department for every employee, all illnesses, diagnosis, treatment and sick leaves were recorded in the medical cards. For each employee information had been collected about all spells of absence (spell is a period of absence Owing to illness on one full day or on each of a series of consecutive calendar days lying between the initial day and the final day) due to sickness lasting one day or more during the period of study. The diagnosis actually shown in the medical cards are based only on the symptoms and

clinical examination of the patient. Thus a wide variety of diagnosis of Varying accuracy appeared on the medical cards, and in order to facilitate the study, they had been classified according to the International Classification of diseases. There are seven categories of diseases under which the majority of the diagnosis could be classified. Thus out of 3667 diagnosis, 2625 were classified, a ratio of 71.6%. The diagnosis which did not fit into any of these categories (827 diagnosis, a ratio of 22.5%) were classified under miscellaneous. there were 215 cases (a ratio of 5.9%) where no diagnosis was mentioned.

Table 1

Distribution of all employees of Iraqi Tobacco State Company by age group.

Age group	Male workers		Female workers		Male staff		Total employees	
	No.	%	No.	%	No.	%	No.	%
20 - 29	79	6.7	33	32.4	23	24.7	135	9.9
30 - 39	368	31.3	49	48	54	58.1	471	34.4
40 - 49	494	42	14	13.7	12	12.9	520	37.9
50 - 59	202	17.2	6	5.9	4	4.3	212	15.5
60 +	32	2.8	-	-	-	-	32	2.3
All ages	1175	100	102	100	93	100	1370	100

Table 2

Distribution of employees in different groups by duration of employment in years.

No. of Years employed	Male workers		Female workers		Male staff		Total employees	
	No.	%	No.	%	No.	%	No.	%
0 - 4	90	7.6	53	52	49	52.7	192	14
5 - 9	209	17.8	39	38.2	36	38.7	284	20.7
10 - 14	356	30.3	8	7.8	4	4.3	368	26.9
15 - 19	269	22.9	2	2	4	4.3	275	20.1
20 +	251	21.4	-	-	-	-	251	18.3
Total	1175	100	102	100	93	100	1370	100

In order to examine the morbidity ratio between male workers and male staff, it was necessary to remove the effect of age as it is a factor that influences the pattern of sickness absence. For that purpose, Indirect Standardisation method was used⁽⁸⁾. The standard population for the purpose of this examination is the entire male population included in the study. The indices of sickness absence were used, the average days lost per person and the inception rate (spells).

Average days lost per person are the total number of calendar days lost within a defined period (1st. January 1973 to 31st. December 1973) of all spells of sickness that occurred wholly or partly within that period divided by the total number of employees exposed to risk during the period (note = the relevant number of calendar days in the numerator comprises only those days of sickness which fall within the period of observation).

Inception rate (spells) is the number of spells of sickness which start during a defined period, divided by the total number of employees exposed to risk during that period.

RESULTS

The total population at risk was 1370 employees, 182 employees had no sickness absence during the year of study 1973. The total number of spells of absence was 3667. Of these, the total number of spells of absence of short duration (1 - 3 days period) was 3275 making 89.3% of the total, the number of spells of medium duration (4 - 6 days period) was 269 making 7.3% of the total, the number of spells of long duration (7 plus days) was 123 making 2.4% of the total spells of absence (Table - 3). The inception rate was 2.7 spells per annum (3667 divided by 1370).

The total number of calendar days lost was 9394. The percentage of days lost from sickness was 2.2% (9394 divided by 1370 $\times$ 308, the result multiplied by 100). The average days lost per person per annum was 6.9 days (9394 divided by 1370). The total number of spells of absence due to accidents was 758 days (Table 8 and 9). The percentage of days lost due to accidents was 8.1% (758 divided by 9394, the result multiplied by 100).

The pattern of spells of absence and days lost in relation to different age groups (Tables 4 and 5) shows a progressive rise in the number of spells and days lost with increasing age, reaching a maximum for the age group of 40 - 49 years (36.8% of total spells and 33.9% of total days lost) and then declining down to the age group of 60 + years (3.1% of total spells and

4.9% of total days lost). The highest inception rate (Table — 6 —) was found among female employees (4.7 spells), while the lowest was found among staff employees (2.4 spells). The average days lost per person (Table — 7 —) was highest among female workers (12 days) and the lowest was among male workers (5.3 days).

Table 3

Distribution of spells of absence in different groups by type of spells.

Type of spells	Number of spells of absence							
	Male workers		Female workers		Male staff		Total employees	
	No.	%	No.	%	No.	%	No.	%
Short								
1-3 days	2654	89	436	91.2	185	89.4	3275	89.3
Medium								
4-6 days	220	7.4	30	6.3	19	9.2	269	7.3
Long								
7+ days	108	3.6	12	2.5	3	1.4	123	3.4
Total	2982	100	478	100	207	100	3667	100

Table 4

Distribution of spells of absence in different groups by age.

Age group	Number of spells of absence							
	Male workers		Female workers		Male staff		Total employees	
	No.	%	No.	%	No.	%	No.	%
20 — 29	175	5.9	169	35.4	55	26.6	399	10.9
30 — 39	854	28.6	211	44.1	112	54.1	1177	32.1
40 — 49	1242	41.6	75	15.7	31	15.3	1348	36.8
50 — 59	596	20	23	4.8	9	4.3	628	17.1
60 +	115	3.9	—	—	—	—	115	3.1
All ages	2982	100	478	100	207	100	3667	100

Table 5

Distribution of days lost in different groups by age.

Age group	Number of days lost							
	Male workers		Female workers		Male staff		Total employees	
	No.	%	No.	%	No.	%	No.	%
20 — 29	373	4.9	406	31	118	23.7	897	9.5
30 — 39	1947	25.7	623	47.6	252	50.7	2822	30
40 — 49	2920	38.5	179	13.7	87	17.5	3186	33.9
50 — 59	1892	24.9	101	7.7	40	8.1	2033	21.7
60 +	456	6	—	—	—	—	456	4.9
All ages	7588	100	1309	100	497	100	9394	100

The highest number of spells of absence for all employees was due to diseases (Table — 8 —) of upper respiratory system (17.2% of the total spells) if we exclude the miscellaneous group. The next category was due to bronchitis (13.9% of the total spells). This was followed by diseases of skeleton — muscular system where the number is 451 spells (12.3% of the total), while the highest number of days lost was due to bronchitis (Table — 9 —) if the miscellaneous group of diseases was excluded. The lowest number of spells was due to accidents (4.6% of the total). (Table — 9 —) shows that the highest number of spells were in the month of January (14.3% of the total) and the lowest in May (5.4% of the total).

Table 6

Inception rate in different groups by age and standardised for age.

Age group	Male workers	Female workers	Male staff	Total employees
20 — 29	2.2	5.1	2.4	3.0
30 — 39	2.3	4.3	2.1	2.5
40 — 49	2.5	5.4	2.6	2.6
50 — 59	3.0	3.8	2.3	3.0
60 +	3.6	—	—	3.6
All ages	2.5	4.7	2.3	2.7
Standardised for age	2.5	—	2.4	—

Table 7
Average days lost per person in different groups by age group and standardised for age.

Age group	Male workers	Female workers	Male staff	Total employees
20 — 29	4.7.*	12.3	5.1	6.6
30 — 39	5.3	12.7	4.6	6.0
40 — 49	5.9	12.8	7.3	6.1
50 — 59	9.4	16.8	10.0	9.6
60 +	14.3	—	—	14.3
All ages	6.5	12.8	5.3	6.9
Standardised for age	6.4	—	6.3	—

$$* 4.7 = \frac{374}{79}$$

Note:— 1. For number of employees in each group see Table — 1—
2. For number of days lost in each group see Table — 5—

Table 8
Distribution of spells of absence in different groups by diseases diagnosed.

Diseases	Male workers		Female workers		Male staff		Total employees	
	No	%	No	%	No	%	No	%
Upper resp.	430	14.4	128	26.8	72	34.8	630	17.2
Bronchitis	451	15.1	39	8.1	20	9.6	510	13.9
G. I. Tract	316	10.6	25	5.2	42	20.3	383	10.4
G. U. Tract	192	6.4	18	3.8	12	5.8	222	6.0
Skeletal — Muscular	399	13.4	41	8.6	11	5.3	451	12.3
Anaemia	206	6.9	40	8.4	13	6.3	259	7.1
Accidents	134	4.5	30	6.3	6	2.9	170	4.6
Miscellaneous	682	22.9	114	23.8	31	15.0	827	22.6
Unknown	172	5.8	43	9.0	—	—	215	5.9
Total	2982	100	478	100	207	100	3667	100

Table 9

Distribution of days lost in different groups by diseases diagnosed.

Disease	Male workers		Female workers		Male staff		Total employees	
	No.	%	No.	%	No.	%	No.	%
Upper resp.	784	10.3	195	14.9	124	24.9	1103	11.6
Bronchitis	1479	19.5	119	9.1	47	9.5	1645	17.5
G. I. Tract	586	7.7	75	5.7	97	19.5	758	8.1
G. U. Tract	558	7.4	59	4.5	38	7.7	655	7.0
Skeleto - Muscular	745	9.8	85	6.5	27	5.4	857	9.2
Anaemia	355	4.7	89	6.8	35	7.1	479	5.1
Accidents	602	7.9	143	10.9	14	2.8	759	8.1
Miscella - neous	2071	27.3	362	27.7	115	23.1	2548	27.2
Unknown	408	5.4	182	13.9	—	—	590	6.2
Total	7598	100	1309	100	497	100	9304	100

Table 10

Distribution of spells of absence in different groups by months of year 1973.

Months of year	Male workers		Female workers		Male staff		Total employees	
	No.	%	No.	%	No.	%	No.	%
January	426	14.3	80	16.6	20	9.7	526	14.3
February	314	10.5	40	8.4	16	7.7	370	10.2
March	229	7.7	35	7.3	12	5.8	276	7.5
April	177	5.9	22	4.6	7	3.4	206	5.6
May	157	5.3	20	4.2	21	10.1	198	5.4
June	214	7.2	25	5.2	13	6.3	252	6.9
July	232	7.8	29	6.1	22	10.6	283	7.7
August	266	8.9	79	16.5	19	9.2	364	9.9
September	209	7.0	46	9.5	14	6.8	269	7.3
October	181	6.1	26	5.4	18	8.7	225	6.2
November	221	7.4	29	6.1	30	14.5	280	7.6
December	356	11.9	47	9.7	15	7.2	418	11.4
TOTAL	2982	100	478	100	207	100	3667	100

DISCUSSION

This study is based on the medical records of the employees of the Iraqi Tobacco State Company who worked continuously during the calendar year 1973. The analysis of sickness absence has been done for 1370 employees (Table — 1 —). There were 1175 male workers and 93 staff employees. The staff employees were considered as a control group because they worked in a building which is completely separated from that in which cigarettes are manufactured. The male workers had a long duration of service, more than 10 — 20 years (Table — 2 —), while the female workers and the staff employees had a short duration of service, less than 9 years. This could be due to the labour laws which stipulate that no worker should be sacked without the agreement of the Minister of Labour and also because once a worker is dismissed from the service, he is no longer eligible for work in any other Governmental organisation. As these control 90% of all available jobs in the country, it is very difficult for them to find alternative employment. It follows that there has to be a very compelling reason before even considering to dismiss a worker from his job. The reasons that the female workers has a short duration of service could be due to social customs and cultural factors, i. e women can work when she is required to support her children or her family and she had to stop when this has been overcome. The reason that why the staff employees have less than 10 years of service was that the older staff with longer experience was transferred to the general head - quarters which was created in 1970 for the three tobacco factories in Iraq.

Table — 3 — shows that for all employees 89.3% of the spells of absence are of short duration (1 — 3 days). This could be explained by the fact that most of the diseases among the employees were of a minor nature or due to social reasons⁽⁹⁾ and to confirm this a further investigation would be necessary.

The age distribution with spells of absence (Table — 4 —) shows that the number of spells start to rise from the age group of 20 — 29 years (10.9% spells) up to the age group of 40 — 49 years (36.6% spells), then decline until the age group of 60 + years (3.1% spells). The same pattern is seen in number of days lost with age groups (Table — 5 —). So age was found to be associated with sickness absence both in frequency and duration. there are no facts which can explain these results, but it may be speculated that young workers have not yet developed a sense of responsibility and have frequent spells of short duration due to minor ailments. The rise in days lost in the older age group may be associated with a higher

incidence of more serious diseases. However, these results are similar to Taylor study⁽¹⁰⁾.

The inception rate standardised for age (Table — 6 —) was higher (2.5 spells) in the male workers in relation to the staff (2.4 spells). The average days lost per person standardised for age (Table — 7 —) was higher (6.4 days) in the male workers in relation to the staff (6.3 days). The female workers were not included in this relation because age and sex were not standardised. The results go parallel with other studies (11 - 13) i. e different jobs have different sickness absence pattern.

The distribution of spells by diagnosis (Table — 8 —) shows 5.9% of the total spells with no known diagnosis. The possible explanation of this that, some times, a worker needs leave for personal reasons at a time when he is unable to take the annual leave, so the worker tries to get sick leave from the factory doctor in which the doctor can not give any diagnosis. If the miscellaneous diagnosis was excluded, the highest percentage of spells due to disease was due to upper respiratory (17.2% of the total spells). Although the number of spells of absence due to accidents was the lowest (4.6% of the total spells) in the distribution of all spells, the number of days lost due to accidents was 8.1% of the total days lost (Table — 9 —). However, the lowest number of days lost due to disease was due to all types of anaemia (5.1% of the total days) while the highest number of days lost was due to bronchitis (17.5% of the total days).

it is interesting to find that staff have higher percentage of spells than male workers in the diseases of upper respiratory and G. I. Tract on one hand and higher percentage of days lost than male workers in the following diseases, upper respiratory, G. I. Tract, G. U. Tract and anaemia. It is difficult to give an explanation for this for several reasons, the criteria of diagnosis are not definite, no previous detailed history of the clinical conditions is available and there is no detailed information about the morbidity in the community. So it could be left open for further investigation and study. Table 10 shows the highest percentage of spells were taken by the employees in winter season (December 11.4%, January 14.3% and February 10.1% of all spells) and the lowest in pleasant time of the year (April 5.6% and May 5.4% of all spells). Most of other studies shows that sickness absence varies with the season which tends to be the highest when the climate conditions are at their worst (Winter) and Lowest when the climate conditions are at their best (14 - 16). The staff had a higher percentage of spells of sickness absence in May and Jul in relation to male workers, this could be explained, that the staff are more free to take leave during these hot months.

CONCLUSION

Most of spells were of short duration, young employees took more spells than old employees, Female workers take off from work more than male workers, There were differences in taking spells when the jobs were different and also there was seasonal variation in the pattern of spells.

This study clearly shows that the pattern of sickness absence among the employees of Iraqi Tobacco State Company goes parallel with the pattern of Sickness absence among employees in other countries^(1,2,16-18).

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