

# SICKNESS ABSENCE OF MIGRANT WORKERS

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## SYNOPSIS

Few papers had been published on the sickness absence of migrant workers. Among them none had been done in developing country. This paper describes the sickness absence experience of 228 migrant workers in a furniture factory.

On the average, the migrant workers had 2.3 spells and 4.3 days of sickness absence per worker. Race and sex differences were seen among the migrant workers were higher than local workers.

Migrant workers had higher absence due to work injuries and febrile upper respiratory tract infections. These differences are probably due to the personal and work adjustment encountered in working in a foreign land.

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## INTRODUCTION

Sickness absence is a multi-factorial syndrome. Though it is defined as absence from work attributed to sickness or injury, medical reasons are often not the major factors in sickness absence.<sup>(1)</sup>

Most of the literatures on sickness absence are derived from the West. Most of these examined factors as sex,<sup>(2)</sup> marital status,<sup>(2)</sup> age,<sup>(3)</sup> ethnic differences,<sup>(4)</sup> shift work<sup>(5, 6, 7)</sup> and work condition.<sup>(8)</sup> Few studies had compared the sickness absence of local and migrant workers.<sup>(4, 9, 10)</sup>

In Singapore, few studies had been done on sickness absence. Most of the factors studied were similar to those in the West. With a multi-racial work force, there had been particular focus on racial differences.<sup>(11, 12, 13)</sup> With a considerable proportion of migrant work force and the special problems faced by migrant workers, this paper seeks to describe the sickness absence experience of migrant workers in a furniture factory.

## MATERIALS AND METHODS

### Data Collection

The study population consists of 345 non-executive workers from a furniture factory in Singapore. Personal data of each worker were collected on pre-coded forms. Their sickness absence records from April 1st 1983 to March 31st 1984 were collected. The diagnosis of each spell of absence were obtained from the factory clinic. For workers who received their medical certificates from other sources, letters were sent to the respective physicians to obtain information on the particular spell of absence. In this way 87.9% of all the diagnoses were known.

### Definitions and Statistics

The definitions of sickness absence as described by the Permanent Commission and International Association on Occupational Health<sup>(14)</sup> were adopted in this study. The sickness absence rates are calculated as follows:

$$\begin{aligned} \text{Frequency (spells)} &= \frac{\text{Total number of spells of absence in study period}}{\text{Population at risk}} \\ &\text{(i.e. mean spells/worker)} \\ \text{Frequency (days)} &= \frac{\text{Total number of days absence in study period}}{\text{Population at risk}} \\ &\text{(i.e. mean days/worker)} \\ \text{Frequency (persons)} &= \frac{\text{Total number of workers with at least one spell of absence}}{\text{Population at risk}} \times 100 \\ &\text{(i.e. \% of workers with at least one spell of absence)} \\ \text{Average duration per spell} &= \frac{\text{Total number of days of absence in study period}}{\text{Total number of spells of absence in study period}} \end{aligned}$$

For comparison between local and migrant workers the sickness absence rates were standardized for sex and race using the entire population as the standard population. Age was not a confounding factor in this study.

Statistical analysis was done on an IBM micro-computer using the softwares dBase II and Abstat.

## RESULTS

### Characteristics of study population

The study population was made up of 117 local workers and 228 (66.1%) migrant workers. The migrant workers were from Malaysia (52.2%) and Sri Lanka (13.9%). The sex, age and ethnic composition are shown in table 1.

Most of the workers employed in this factory were young. The age distribution of migrant and local workers were quite comparable: 83.8% of local workers were below 35 years old and 81.6% for the migrant workers. The sex and ethnic distribution were however quite different.

The 345 workers were attached to 18 departments during the one year period. These departments can be conveniently classified into three different work groups: production, maintenance and administration. The distribution of these workers in these three work groups are shown in table 2.

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Table 1  
SEX, AGE AND ETHNIC DISTRIBUTION OF STUDY POPULATION

	Local Workers		Migrant Workers		Total	
	No.	(%)	No.	(%)	No.	(%)
<b>SEX</b>						
Male	80	(68.4)	108	(47.4)	188	(54.5)
Female	37	(31.6)	120	(52.6)	157	(45.5)
<b>AGE (years)</b>						
< = 25	69	(59.0)	116	(50.9)	185	(53.6)
26 — 35	29	(24.8)	70	(30.7)	99	(28.7)
36 — 45	15	(12.8)	33	(14.5)	48	(13.9)
46 — 55	2	( 1.7)	8	( 3.5)	10	( 2.9)
> 55	2	( 1.7)	1	( 0.4)	3	( 0.9)
<b>ETHNIC GROUPS</b>						
Chinese	76	(65.0)	10	( 4.4)	86	(24.9)
Malay	35	(29.9)	121	(53.1)	156	(45.2)
Indian	6	( 5.1)	97	(42.5)	103	(29.9)

Table 2  
DISTRIBUTION OF THE WORKERS BY WORK GROUPS

WORK GROUPS	Local NO.	Workers (%)	Migrant No.	Workers (%)	Total	
					No.	(%)
Production	64	(54.7)	193	(84.7)	257	(74.5)
Maintenance	13	(11.1)	16	( 7.0)	29	( 8.4)
Administration	21	(18.0)	3	( 1.3)	24	( 7.0)
Others*	19	(16.2)	16	( 7.0)	35	(10.1)

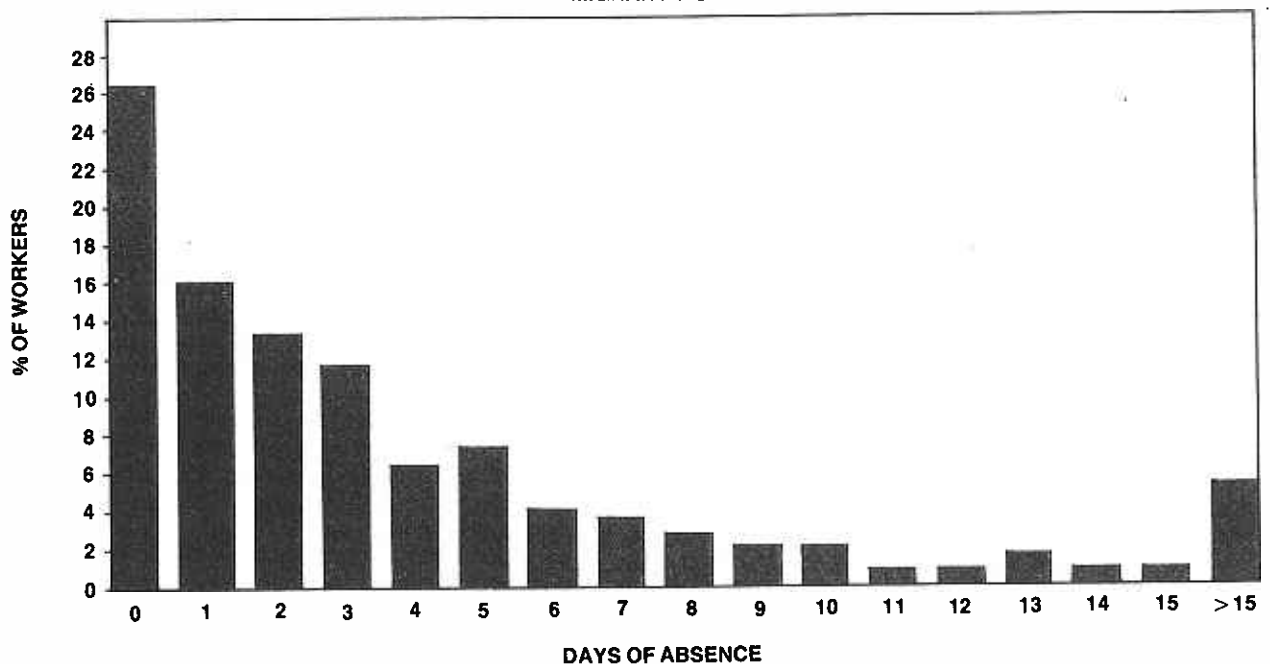
\* This consists of those workers who changed departments during the study period.

### Sickness Absence Rates

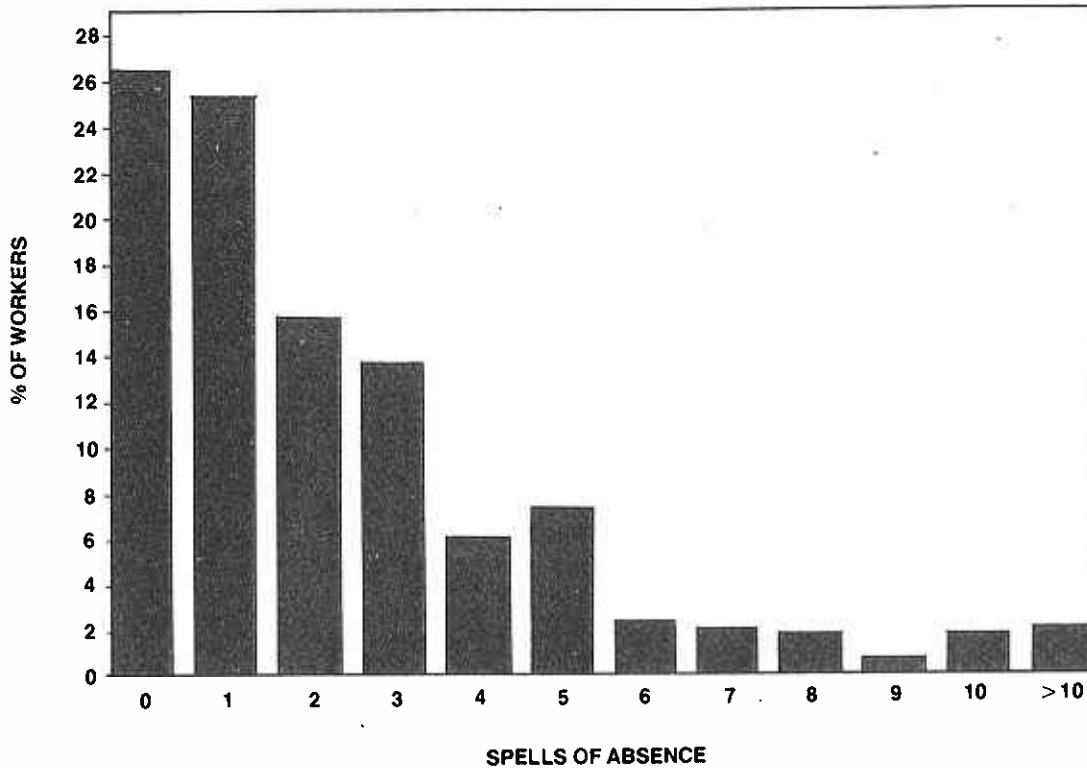
From 1st April 1983 to 31st March 1984, the 228 migrant workers in the furniture factory incurred a total of 523 spells and 982 days of sickness absence. This averaged to 2.3 spells and 4.3 days of sickness absence per worker. 73.7% of the workers had at least one spell of absence. The frequency distribution of days and spells of absence for migrant workers are shown in figures 1 and 2. These distributions show the

typical negative binomial distribution. Local workers incurred 234 spells and 492 days of sickness absence. This averaged to 2.0 spells and 4.2 days of sickness absence per worker with 70.1% of the local workers having at least one spell of absence in the study period. No significant difference was found between the proportion of workers with at least one spell of absence.

FIG 1  
DISTRIBUTION OF DAYS OF ABSENCE  
MIGRANT WORKERS



**FIG 2  
DISTRIBUTION OF SPELLS OF ABSENCE  
MIGRANT WORKERS**



Female migrant workers have consistently higher rates of absence when compared to male migrant workers (Table 3). This is seen in both Malays and Indians. The differences in the proportion of workers with at least one spell of absence was however, not statistically significant. The Chinese males and females were not compared, as the number of workers were too small for any meaningful comparison.

Racial differences is seen mainly in the males. The Indians had consistently higher sickness absence rates. In

the females the Indians had higher mean spells and percentage with at least one spell of absence.

When workers from the Production group were compared, the migrant workers were found to have slightly higher mean days and mean spells of sickness absence per worker. The local production workers however have a longer mean duration per spell of absence (Table 4). Seven percent more of migrant workers had at least one spell of absence in the study period.

Table 3  
**SICKNESS ABSENCE RATES OF MIGRANT WORKERS BY SEX AND RACE**

Sex/ Race	No. of workers	Mean days lost per worker	Mean spells lost per worker	Mean duration /spell	Number with at least one spell
<b>MALES</b>					
Malays	36	2.94	1.86	1.58	23 (63.9%)
Indians	64	5.17	1.92	2.69	50 (78.1%)
<b>FEMALES</b>					
Malays	85	4.46	2.62	1.70	61 (71.8%)
Indians	33	4.30	2.94	1.46	26 (78.8%)

Table 4  
**SEX AND RACE STANDARDIZED ABSENCE RATES OF MIGRANT AND  
LOCAL PRODUCTION WORKERS**

CITIZEN	No. of workers	Mean days lost per worker	Mean spells lost per worker	Mean duration /spell	Percentage with > = 1 spell
Migrant	193	4.13	2.24	1.84	76.5%
Local	64	4.02	1.91	2.10	69.5%

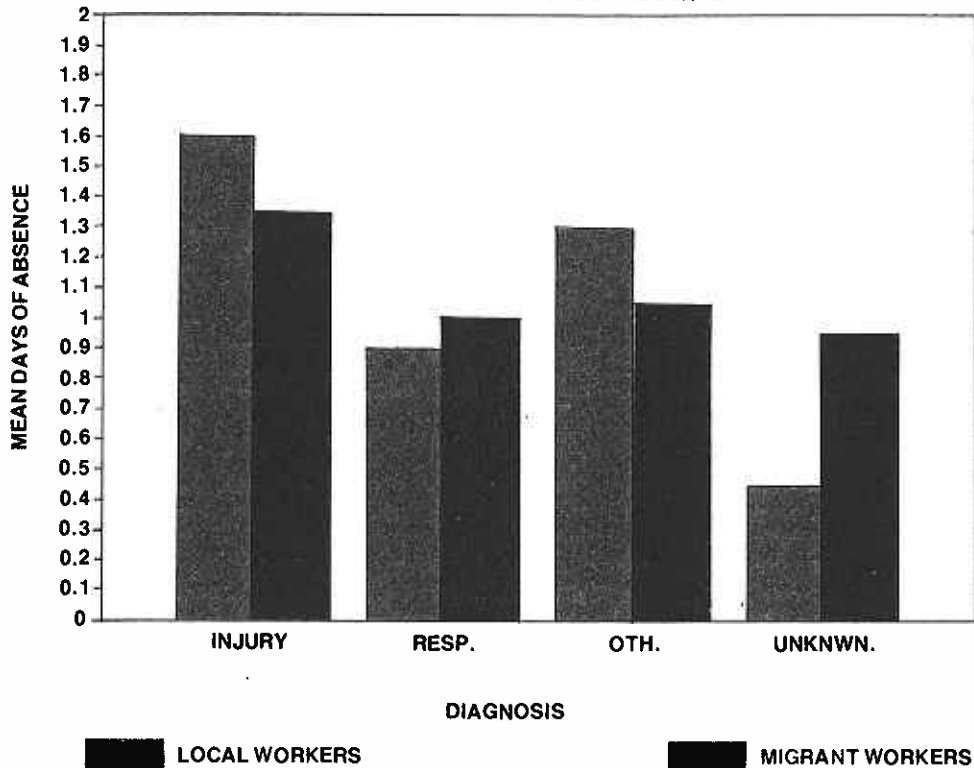
**Causes of Absence**

The diagnoses that were of interest in this factory will be work injuries and respiratory complaints. Figures 3 and 4 show the absence rates due to the various causes for migrant and local workers. Local workers had higher absence rates due to injuries. However a significantly larger proportion of migrant workers sustained their injuries at work ( $p < 0.01$ ) (Table 5). Migrant workers also had a higher proportion of workers sustaining hand injuries.

Upper respiratory tract infections constituted the largest

percentage of respiratory complaints among both groups of workers. These include cases diagnosed as upper respiratory tract infections, influenza and flu. Though a diagnosis of upper respiratory tract infection is not necessarily a case of upper respiratory tract infection, selecting only febrile cases gives a better indication of the prevalence of febrile cases of upper respiratory tract infections. Migrant workers had a significantly higher proportion of workers with sickness absence due to febrile cases of upper respiratory tract infections ( $p < 0.001$ ) (figure 5).

**FIG 3  
MEAN DAYS OF ABSENCE  
FOR VARIOUS CAUSES OF ABSENCE**



**FIG 4  
MEAN SPELLS OF ABSENCE  
FOR VARIOUS CAUSES OF ABSENCE**

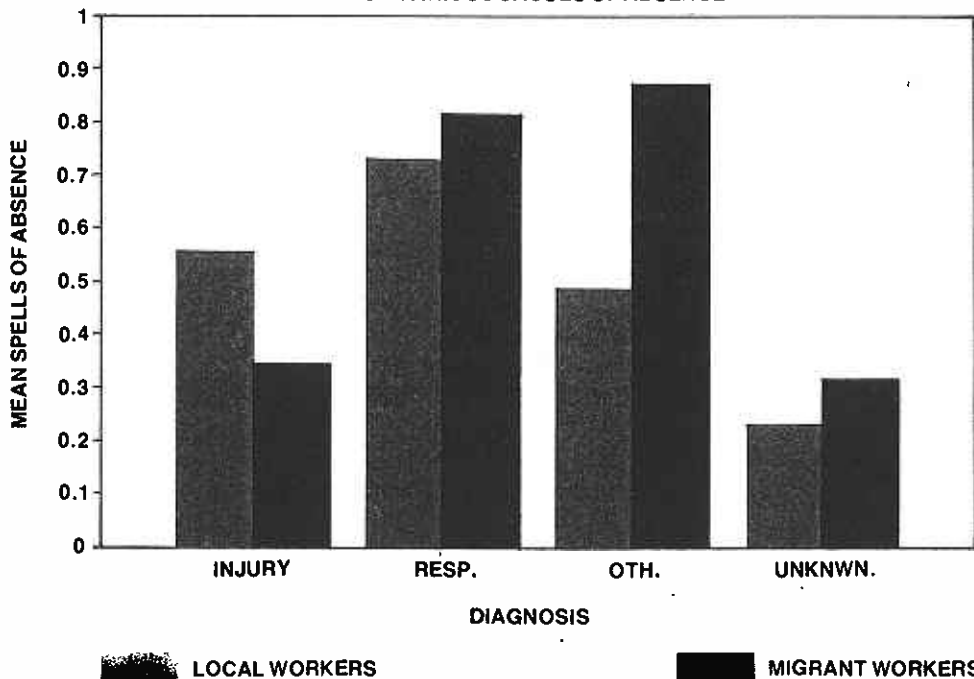
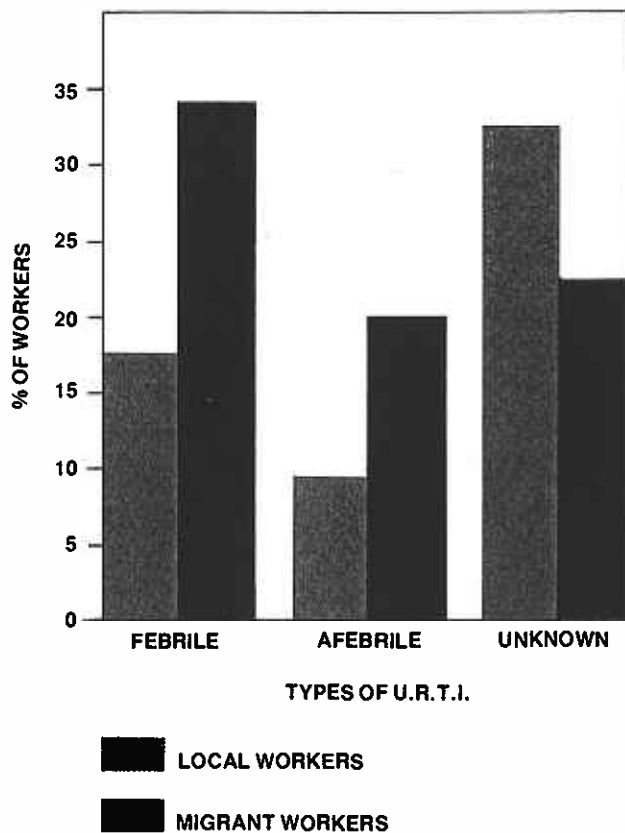


Table 5  
**TYPES OF INJURIES SUSTAINED BY LOCAL AND MIGRANT WORKERS**

Type of Injuries	Local Number	Workers Percentage	Migrant Number	Workers Percentage
Injuries sustained at work	25	38.5	52	65.0
Injuries sustained outside work	40	61.5	28	35.0
Hand Injuries	17	26.2	32	40.0
Non-hand Injuries	48	73.8	48	60.0

FIG 5  
**ABSENCE DUE TO UPPER RESP. TRACT INFN  
 LOCAL AND MIGRANT WORKERS**



## DISCUSSION

The absence rates of 345 full year non-executive workers in the furniture factory are 2.19 spells and 4.27 days per worker. This is by far the lowest rate when compared to recent studies by Yeong<sup>(16)</sup> and Ng<sup>(13)</sup> in heavy industries and Suratman<sup>(12)</sup> in petrochemical industry. The difference is probably due to the different types of industrial activity involved.

Migrant workers displayed the typical negative binomial distribution of days and spells of absence. Sex and racial differences exist in their absence behaviour. When compared with local counterparts, migrant workers have higher sickness absence. This is consistent with other studies in the West.<sup>(4, 9, 10)</sup> Though migrant workers are considered as highly selected groups, having pass entry requirements of the host country,<sup>(17)</sup> they are often at a disadvantage because of

cultural and language differences, job adjustment, and psycho-social stress.<sup>(4)</sup> Furthermore, medical examinations for work permits are often routine without much consideration given to the nature of the work the worker is going to encounter.<sup>(18)</sup>

This disadvantage can be illustrated by the higher proportion of injuries sustained at work by migrant workers. Being less familiar with the work procedure, machinery and possibly communication problems, they are more prone to work injuries. Furthermore they may do more overtime work hence exposing themselves to a greater risk of sustaining work injuries.

It is also interesting to note that migrant workers had higher absence due to febrile upper respiratory tract infections. This will however need further examination before conclusion of lower resistance to local strains of viruses can be postulated.

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