STAFF SURGEON UTILIZATION PATTERN AT COMBINED MILITARY HOSPITAL LAHORE

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ABSTRACT

Objective: The study was conducted to highlight the sickness absenteeism pattern among the doctors and nurses of Combined Military Hospital, Lahore in the year 2014.
Study Design: Cross sectional descriptive study.
Place and Duration of Study: Combined Military Hospital (CMH) Lahore, 1 year from Jan 2014 to Dec 2014.
Patients and Methods: Sick-in-Quarter (SIQ) reports of doctors and nurses were collected from the SIQ register of Combined Military Hospital, Lahore for the duration of 1 year. This data was categorized based on gender, rank, causes and duration of illness. Frequencies of Sickness absenteeism of the health care providers based on these categories were noted and analyzed through SPSS 20.
Results: A total of 670 SIQ's were issued to health care professionals at CMH Lahore in 2014. Of these, 164 (24.5%) were issued to males and 506 (75.5%) were issued to females. Out of these 316 (47.2%) were doctors and 354 (52.8%) were nurses (p<0.001). Maximum absenteeism was caused by respiratory diseases 176 (26.28%). Monday showed the highest predominance of sick reports with 166 (24.8%). Most SIQ's were issued in April 90 (13.4%) while a low number of SIQs were issued in February 20 (3%).
Conclusion: Sickness absenteeism was highly prevalent, and was higher among nurses than doctors. Respiratory diseases were the leading cause of sickness absenteeism among the doctors and nurses. Measures are needed to sustain the health of doctors and nurses to improve the overall patient care.

Keywords: Disease, Health personnel, Sick leave.

INTRODUCTION

Health care providers (HCP) have a pressure to appear physically well no matter what. The patient's perceptions, health care provider's (HCP) own views and the professional milieu all play a contributory role in this regard.

For patients, the doctor's health is a reflection of their medical competence. HCP, on the other hand, are not only poor at taking care of themselves most of the time, they often fail to acknowledge illness at personal and family level as well. Duty towards patients, responsibility towards colleagues, embarrassment in adopting the sick role, concerns about confidentiality and poor working arrangements are some of the reasons why HCP report for work despite sickness. Our professional culture discourages discussion of personal health and family illness with colleagues. Self diagnosis, self prescription, self referral, late presentations with serious problems, inappropriate care and not adhering to protocols are the norm. This phenomenon is called Sickness presenteeism (SP) and is defined as working through, and expecting colleagues to work through the same, despite medical conditions that should prevent them from attending[1].

Sickness absenteeism (SA) on the other hand is absence from work due to illnesses. SA is an important measure of employee wellbeing. Job satisfaction and rate of SA are inversely related[2]. For health care administrators (HCAs), the SA of HCP is a source of concern because hospitals cannot afford losing their HCP to sickness as it decreases their efficacy and productivity. In the context of low-income countries, the high cost of

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SA is borne by patients, governments, taxpayers and insurance companies[3]. For patients, this translates into poor access to healthcare services. In addition to disease, a plethora of factors influence a health workers' absence. These may be divided into workplace related factors (public sector, large size of an organization, urban location, workload, working conditions, social exclusion, bullying, violence from colleagues, patients and visitors, poor teamwork, dealing with patients' suffering, death, emergencies, complaints and litigation, being poorly managed or resourced, feeling overworked, organizational changes), personal (gender, age, marital status, self criticism, physical exertion, unhealthy lifestyle, work related exposures, level in the hierarchy and individual health status) and organizational/cultural factors (management, poor job control, poor teamwork, untoward social circumstances, poor social support and adverse life events cultural expectations, policies)[2,4-6].

We conducted this study from a health care administrator's (HCA) perspective. Our aim was to elucidate the existing pattern of illness among different groups of HCP (doctors and nurses). We retrospectively attempted to discern whether correlates of SIQ patterns differ between male and female doctors, female physicians and female nurses, military and civilian doctors and senior doctors (HCAs and specialists) and junior doctors (postgraduate residents and house officers).

MATERIAL AND METHODS

This cross sectional study was conducted at CMH Lahore from January 2014 to December 2014 after obtaining necessary approval from the hospital's research review board. The study population comprised of 594 HCP's which included all the military and civil doctors and nurses in the year 2014 working at CMH Lahore. The sampling technique was simple random sampling. Undergraduate medical students were not included in the study.

The operational definition of SA short spells of sickness (1-5 days) of an HCP.

SA in a military setup is noted in standardized SIQ books kept at the offices of male and female staff surgeon and used for recording short spells of sickness. A maximum of 3 days SIQ may be granted at one time. Up to 2 SIQs may be given in succession. The entire duration cannot exceed 5 days. These SIQ books served as the study instrument. This staff surgeon certified absence was then tallied with data recorded in administrative registers. The data for one year were retrospectively analyzed. All study subjects were anonymous to the research team.

To determine the proportion of each subgroup of our study population, nominal rolls of all HCP working in the hospital on 1 January 2014 and on 31 December 2014 were obtained from administrative records.

For all doctors and nurses working in the hospital, we calculated the total number of days of SA of each employee during the past 12 months.

Other than cadre, our variables included gender (males and females), status (military and civilian), military ranks (in a descending order, doctors ranged from Brigadier, Colonel, Lieutenant Colonel, Major and Captain, while nurses were categorized into Brigadier, Colonel, Lieutenant Colonel, Major, Captain, Lieutenant and Nursing cadets), civilian ranks for doctors included PGRs and HOs while civil nurses comprised the other group.

Position for doctors included HCA, specialists, PGRs (both military and civilian) and HOs (both military and civilian) while for nurses it was divided into administration, middle management and cadets.

The duration of SA was calculated as per the total number of days and was split into following levels: 0,1,2,3,4 and 5 days by merging consecutive spells.

Reasons for SA included respiratory, gastrointestinal, musculoskeletal, neurological, ophthalmological, dental diseases and fever/

infections. Maternity leaves were not included in our study.

The month of the year and day of the week when SIQ was administered were recorded.

The data was analyzed using SPSS version 20. For quantitative variables, mean and standard deviation (SD) and for qualitative variables, frequencies along with percentage were used for description of variables. Pearson's Chi-square test was applied to test statistical significance. A *p*-value of less than 0.05 was considered to be statistically significant.

RESULTS

In the year 2014, 670 SIQ's were issued. Of these, 164 (24.5%) were issued to males and 506 (75.5%) were issued to females. Of the total individuals, 316 (47.2%) were doctors and 354(52.8%) were nurses (p<0.001). Among the Ranks, the maximum SIQ's were issued to individuals on the ranks of Major 258 (38.5%), nursing cadets 136 (20.3%) and captains 102

Table-I: Sickness absenteeism based on gender and rank.

	Total SIQ's n (%)	SIQ's to Doctors n (%)	SIQs to Nurses n (%)	*p*-value
Gender				
Male	164 (24.47)	164 (24.47)	0	<0.001
Female	506 (75.52)	152 (22.68)	354 (52.83)	
Rank – Military				
Brigadier	52 (7.76)	16 (2.38)	36 (5.37)	<0.001
Colonel	30 (4.47)	22 (3.28)	8 (1.19)	
Lieutenant Colonel	62 (9.25)	6 (0.89)	56 (8.35)	
Major	258 (38.50)	122 (18.20)	136 (20.29)	
Captain	102 (15.22)	74 (11.04)	128 (19.10)	
Nursing Cadets	136 (20.29)	0	136 (20.29)	
Rank – Civil				
Trainees	8(1.19)	8 (1.19)	0	<0.001
House Officers	24(3.58)	24 (3.58)	0	
Civil Nurses	4(0.59)	0	4 (0.59)	

Table-II: Sickness absenteeism based on the duration and days of the week.

	Total SIQ's n (%)	SIQ's to Doctors n (%)	SIQs to Nurses n (%)	*p*-value
Duration (days)				
1	122 (18.20)	84(12.53)	38(5.67)	<0.001
2	234 (34.92)	106(15.82)	128(19.10)	
3 or more	314 (46.86)	126(18.80)	188(28.05)	
Day on which SIQ was administered				
Monday	166 (24.76)	84 (12.53)	82 (12.23)	<0.001
Tuesday	96 (14.32)	58 (8.65)	38 (5.67)	
Wednesday	136 (20.29)	72 (10.74)	64 (9.55)	
Thursday	127 (18.95)	62 (9.25)	65 (9.70)	
Friday	125 (17.91)	40 (5.97)	58 (8.65)	
Saturday	25 (3.73)	0	25 (3.73)	
Sunday	22 (3.28)	0	22 (3.28)	

(15.22%). Table-I shows the frequency of sickness absenteeism among the genders and ranks of HCP's.

Among the days when SIQ's were issued, Monday showed the highest predominance of sick reports with 166 (24.8%), followed by Wednesday 136 (20.3%), Thursday 127 (19%) and Friday 125 (18.7%) and Tuesday 96 (14.3%). Least Sick reports were seen on Saturdays 25 (3.7%) and Sundays 22 (3.3%). Three hundred and fourteen (46.86%) SIQ's were issued for 3 days, 234 (34.92%) were issued for 2 days and 122 (18.2%) were issued for a duration of 1 day (p<0.001) (table-II).

Table-III shows the diseases which yielded the sickness absenteeism. Maximum absenteeism was caused by respiratory diseases 176 (26.28%), gastrointestinal diseases 139 (20.74%), musculoskeletal diseases 91 (13.58%) and fever 72 (10.7%).

Among the months, maximum SIQ's were issued in the summer months of April 90 (13.4%) followed June 89 (13.3%), July 72 (10.7%) while the least SIQs were issued in February 20 (3%), (table-IV).

Table-III: Sickness absenteeism based on the cause of illness.

	Total SIQ's n (%)	SIQ's to Doctors n (%)	SIQs to Nurses n (%)	*p*-value
Disease Group				
Respiratory	176 (26.26)	100(14.92)	76 (11.34)	<0.001
Gastrointestinal	139 (20.74)	52 (7.76)	87(12.98)	
Musculoskeletal	91 (13.58)	58 (8.65)	33 (4.92)	
Fever	72 (10.74)	24 (3.58)	48 (7.16)	
Neurological	50 (7.46)	19(2.83)	31 (4.62)	
Dental	39 (5.82)	20 (2.98)	19 (2.83)	
Ophthalmological	30 (4.47)	18 (2.68)	12 (1.79)	

Table-IV: Sickness absenteeism in respective months of year 2014.

	Total SIQ's n (%)	SIQ's to Doctors n (%)	SIQs to Nurses n (%)	*p*-value
Month				
January	36 (5.37)	26 (3.88)	10 (1.49)	<0.001
February	20 (2.98)	9 (1.34)	11 (1.64)	
March	68(10.14)	28 (4.17)	40 (5.97)	
April	90 (13.43)	56 (8.35)	34 (5.07)	
May	66 (9.85)	24 (3.58)	42 (6.26)	
June	89 (13.28)	30 (4.47)	59 (8.80)	
July	72 (10.7)	24 (3.58)	48 (7.16)	
August	53 (7.91)	20 (2.98)	33 (4.92)	
September	44 (6.56)	24 (3.58)	20 (2.98)	
October	58 (8.65)	30 (4.47)	28 (4.17)	
November	42 (6.26)	12 (1.79)	30 (4.47)	
December	32 (4.47)	12 (1.79)	20 (2.98)	

DISCUSSION

Our study may be regarded as an exploratory ground breaking work on the subject. This study offers a unique perspective because of its in-built comparison groups for cadre status, gender, rank and position.

It has been documented that the size of an organization influences sickness absenteeism[6]. In big public sector hospitals especially those located in urban areas, SA is more common[3]. Ours is an urban tertiary care military referral

hospital. As per our study, in the year 2014, 670 SIQ's were issued. Unfortunately in the literature review, we could not find any study that could shed light on Pakistani hospitals.

A two year study (n=861) analyzed the SA records of medical staff in a university teaching hospital and found that SA was more prevalent among females[7]. One hundred and sixty four (24.47%) SIQ's were issued to males and 506 (75.57%) were issued to females, following similar trends. A norwegian study showed that SA among females is mostly related to family responsibilities, while the men are burdened by work stress[8]. A few studies did not yield a significant difference in the SA pattern between men and women[9], however a majority of studies have concluded otherwise[10,11]. We opine that the higher rate of SA in females could be attributed to more work load in terms of family management in addition to health care responsibilities. Female doctors' absenteeism may also be related to caring for their children or other members of the family[12].

A 2010 postal survey among norwegian doctors suggested that the majority of them continued to work even in sickness[13]. Among HCPs, doctors make less use of SA than other cadres[14,15]. However at CMH Lahore 316 (47.2%) doctors received SA are compared to 354 (52.8%) nurses, rates of which comparable.

In another United Kingdom (UK) study, higher percentage of general practitioners compared to hospitalist reported no sick leave in the last year (females: 65.2% vs. 42.9%; males 65% vs. 58%)[16]. According to a finnish study, GPs had more short-term, but not long term, SA than consultants[17].

Among hospitalists, the level of sick days was similar between juniors and seniors, as was the level between general practitioners and specialists[17]. At CMH Lahore, SIQ's were issued by 294 (43.9%) consultants, 186 (27.8%) trainees, 172 (25.6%) staff surgeon and 18 (2.7%) house officers.

Studies connote that SA due to back and neck disorders are associated with female gender and previous sick leave[18]. Our study showed that female gender had an increased SA due to respiratory diseases, gastrointestinal and febrile illness.

It has been reported in literature that SA records are often incomplete or inaccurate. They are self-certified hence the element of false reporting and recall bias limits meaningful interpretation. In military setup, doctor certified sickness is the policy. Noting and recording of SA is reliable as all sick certificates are not only noted in SIQ books but are also forwarded for recording in registers kept for administrative purposes. The bulk of studies on SA have been conducted on nurses. However, we have attempted to study both doctors and nurses. We analyzed retrospective data so there is no non-respondents bias.

The possibility of doctors underreporting sickness cannot be ruled out and has the potential to bias study results. We are only reporting data of one year. We did not attempt to follow up each sick employee. Subsequent visits or hospital admissions were not followed however. Each sickness report was considered unanimous and irrespective of the previous absenteeism. Repeat SIQs of the same individual were not discerned.

Human resource as a separate department needs to be developed in military hospitals. Occupational health services need to be established who analyze all employees availing frequent SIQs in detail. Future research on disease prevalence in different occupational groups, determinants, health consequences and effects on productivity is warranted. The issue of SP needs to be studied. It is the need of the hour to understand how different factors related to the work setting, nature of work, individual characteristics and context influence different forms of absenteeism. Interventions to address them must be designed. Thus we did not specifically seek to explore deeper psychological or social aspects of absenteeism. Nor did we aim

to examine it from an economic perspective. The framework or 'lens' though which we explored the literature aimed to uncover the pattern of sickness among the health care workers and emphasize the need to take necessary steps to protect the health and well-being of HCP's.

CONCLUSION

Sickness absenteeism was highly prevalent, and was higher among nurses than doctors. Respiratory diseases were the leading cause of Sickness absenteeism both among the doctors and nurses. Measures are needed to sustain the health of doctors and nurses to improve the overall patient care.

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CONFLICT OF INTEREST

This study has no conflict of interest to declare by any author.

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