



Work Absenteeism amongst Health Care Workers in a Tertiary Health Institution in Sokoto, Nigeria

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Authors' contributions

This work was carried out in collaboration between all authors. All authors read and approved the final manuscript.

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ABSTRACT

Aim: This study was aimed at assessing the pattern and reasons for work absenteeism among health care workers at the Usmanu Danfodiyo University Teaching Hospital, Sokoto, Nigeria.

Study Design: This was a cross-sectional descriptive study carried out amongst health workers at the Usmanu Danfodiyo University, Sokoto, Nigeria. The study was carried out at the study site from 6th October to 11th December 2017. Using a systematic sampling method, a total of 242 study subjects were recruited for the study. Data collected were entered into and analyzed using IBM SPSS computer software with a level of statistical significance set at $p < 0.05$.

Results: One hundred and ten (45.5%) out of 242 had at least one spell of absence in a year. Absence was highest among the nurses (50.0%) and was lowest among pharmacists (0.9%) with overall absenteeism rate of 1.5%. One hundred and thirty – eight (78.0%) of respondents that were absent from work was due to sickness/illness that affected themselves majorly (88.7%) which was mainly due to Malaria (76.6%) followed by RTA (26.2%).

Conclusion: The most frequent reason for workers' absence was sickness or illness with malaria accounting for the most significant number of spells. Although absenteeism rate in this study was

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found to be very low, the findings underscore the need to put in place adequate sickness absence surveillance and management aimed at addressing the relevant reasons and improving the working conditions of health workers.

Keywords: Work absenteeism; health workers; Nigeria; Usmanu Danfodiyo University; Sokoto.

1. INTRODUCTION

Absenteeism in the health sector is frequently referred to the loss of scheduled time due to unscheduled work absence [1] which has remained a long-standing challenge worldwide. Also, it includes staff who are taking more leave than is necessary. For the International Labor Organization, absenteeism is the employee missing at workplace and absenteeism due to illness is the period of absence from work attributed to the incapacity of the individual, accounted for as the length of the sick leave [2].

Absenteeism is a complex phenomenon whose predictors vary according to the frequency - related to workers' tasks, aspects of leadership and work shift, to the company's organization and to lack of measures to control absences - and the duration of the periods of absences [3-6].

Workers absent themselves from work for various reasons that include ill health, accidents/injuries [7,8] family commitments such as caring for a sick family [9,10] 'entitlement mentality' (where the worker assumes the employer owes him some time away from work) economic pressures necessitating keeping a second job and stress [11] voluntary absenteeism (absence from work for non-justified personal reasons); legal absenteeism (for pregnancy, gala, donating blood and military service) and compulsory absenteeism (prevented from working due to suspension imposed by the employer, because of being imprisoned or some other impediment to the employee reaching the workplace [12].

Absenteeism has been shown to result in loss of man-hours, productivity, finance, jobs and in the health sector, of lives [13,14]. Healthcare workers (HCWs) are an essential element for the efficient delivery of quality health services to a community. Workers, employers, and society experience a significant burden due to workplace absence, prolonged disability, and related costs that accompany workers presenting with common infectious diseases and injuries [15-17].

From the perspective of the hospital, the HCWs represent the most significant workforce, and the

absence of these workers affect the service's organization, generates dissatisfaction and overload among the workers who are present and negatively affects the quality of the care that is provided for the patient [18,19]. The HCWs by virtue of their daily work activities are exposed to various health risks, including the risk of contracting various infectious diseases in their occupational settings [20,21]. These health problems amongst HCWs could negatively impact on workplace productivity, work efficiency, patient safety and quality of patient care [22].

The direct and indirect cost of a high level of absenteeism in the health sector includes the cost of medical bills, paying off additional overtime to staff, temporary staff, reduction in the standard of care to patients, disruption of working schedule, the lowering of morale and increased dissatisfaction among staff [23].

Globally, about 7% of healthcare workers are reported to experience at least one spell of absence each week [1]. In recent times, absenteeism has been studied among health care workers in low- and middle-income countries (LMICs), showing high rates like 25% in Kenya [24]. Unannounced visits made to health facilities with the intention of discovering what fraction of medical professionals was present at their assigned posts showed absence rates of 35% in Bangladesh, 37% in Uganda, and 40% in India and Peru [25].

Although most studies have centered on sickness absenteeism amongst nurses, only a few [26,27] from Nigeria have assessed absenteeism among health workers. This underscores the need to have more studies that take into consideration the aspect of health workers which will provide a platform for a more detailed specific understanding of work absenteeism among healthcare workers. This study, therefore, aims at assessing the extent and reasons for work absenteeism among health care workers at the Usmanu Danfodiyo University Teaching hospital, sokoto, Nigeria. For developing countries including Nigeria with precarious health care delivery systems, absenteeism among health care workers if

allowed to go unchecked will further tilt the health system into a state of comatose.

2. MATERIALS AND METHODS

This descriptive cross-sectional study was carried out at the Usmanu Danfodiyo University Teaching Hospital located in Sokoto town of Sokoto state, North Western Nigeria. The Teaching Hospital which serves as a referral center in North Western Nigeria has a 700 bed capacity with the full complements of all healthcare workers. Sokoto is the capital city of Sokoto State, the seat of the famous Sokoto Caliphate and has a predominantly Hausa-Fulani population. Islam is the main religion practiced in the state. The study population consisted of all healthcare workers (HCWs) who have worked in the hospital not less than one year prior to the commencement of the study and also working in the clinical areas of the hospital (Inclusion criteria). For this study, only the health workers who come in direct contact with patients (Doctors, Nurses, laboratory scientists and pharmacists) were recruited into this study.

Using the formula for descriptive cross-sectional study, the sample size was estimated at 218 and adjusted to 242 to compensate for non-response (with an anticipated 90% response rate) using the formula for determining sample size for descriptive cross-sectional studies. The level of significance was set at 5% $p < 0.05$ a line list of these HCWs was obtained from their various departments thus forming the sampling frame. Using a systematic sampling method and a proportional to population allocation, a total of 242 study subjects were recruited into the study comprising 68 doctors, 4 Pharmacists, 23 Laboratory scientists and 147 nurses.

2.1 Data Collection and Analysis

Data was collected using a set of standardized self administered questionnaire which sought such information as socio-demographic characteristics, cadre of health workers, physical and psychological parameters related to absenteeism and reasons for absenteeism. The questionnaire was pretested on 25 HCWs at the Sokoto State Specialist Hospital, where no ambiguity was detected and there was no need for any Modification of the tool.

Data collected was cleaned, coded and entered into and analyzed using Statistical Program for Social Sciences (SPSS) version 20 software computer program. Frequency distribution tables

were constructed, and cross-tabulations were done to examine the relationship between categorical variables. The Chi-square test was used to compare differences between proportions. All levels of significance were set at $p < 0.05$.

2.2 Ethical Considerations

Ethical approval was sought and obtained from the Ethical Review Committee of the Usmanu Danfodiyo University Teaching Hospital Sokoto. Consent of the study subjects was obtained before commencement of the interview.

3. RESULTS

About half 114 (49.4%) of respondents were between the age group 30 – 39 years with a mean age of 34.8 ± 7.9 years. Majority of the respondents practised Islam 163 (68.2%) and married 182 (76.8%). A total 109 (45.6%) of the respondents were Hausa while 27 (11.3%) were Igbo (Table 1).

One hundred and fifteen (47.5%) out of 242 had at least one spell of absence in a year. Absence was highest among the nurses (48.7%) and was lowest among pharmacists (0.9%) (Table 2). The average number of spells per absentee per year (Frequency rate) was 3.0 spells with the average duration of spells as 2.4 days and the total number of days lost per absentee in a year (incapacity rate) was 6.9 days. Overall absenteeism rate was 1.5. Majority (87.5%) of the consultants and resident doctors (86.0%) have been absent from work in the past one year and this was statistically significant ($p < 0.001$).

Respondents whose jobs were stressful were 2.25 times more likely to be absent from work compared with their counterparts and this was statistically significant (OR = 2.25, $p = 0.05$). Respondents who were satisfied with their jobs were 85% times less likely to be absent from their work compared to their counterparts and this was statistically significant (OR = 0.15, $p < 0.001$). The association between being satisfied with salary, engagement in physical activities and absenteeism were however not statistically significant (Table 4).

One hundred and thirty – eight (78.0%) of respondents who were absent from work was due to sickness/illness that affected themselves severely (88.7%) and was mainly due to Malaria (76.6%) followed by RTA (26.2%) (Table 5).

4. DISCUSSION

In the health sector, workplace absenteeism has been considered as a major cause of loss in jobs, man-hours, productivity, and lives [27]. This is a common phenomenon in most developing nations, Nigeria inclusive where dwindling economy, shortage of qualified manpower occasioned by flight of medical personnel have taken an unprecedented toll on the health care delivery system.

It was demonstrated in the study that up to half of the workers had at least one spell of absence in a year with an average of three spells per year which is similar to the findings from a similar study in south west Nigeria [26]. Similarly, a study from Brazil found that more than fifty percent of their study subjects had at least one absence spell in a year [28].

Findings from our study showed that the rate of absenteeism was higher amongst female health workers compared with the males and this finding is in consonance with findings from other studies [29-31]. The study found an incidence of absence of 45.5% and this is in consonance with

the high rates obtained from similar studies carried out in Benin City, Nigeria and Brazil [1,3] however, a lower incidence was seen in the study from a University Teaching hospital in south western Nigeria (2). The mean number of days lost per absentee in a year (incapacity rate) was found to be 7.2 days which is same as the figure obtained in a study in Benin City, Nigeria [1], but far lower compared to a study in Chile [30]. Different work dynamics that exists in Nigeria and Chile may account for the wide gap observed in the incapacity rates. In contrast, figures lower than what was obtained in our study were observed in other studies [32,33].

Absenteeism rate for the study was found to be 1.5% and this level is less than that considered to be excessive and thus, encouraging. Though these rates are low, they can result in loss of productivity with huge implications in terms of financial and man hours lost which can affect the general economy of a developing country like Nigeria. Higher absenteeism rates of 2.25% and 3.59% have been reported in a study conducted among hospital workers in Santiago [34].

Table 1. Socio – demographic characteristics of respondents

Variables	Number (%)
Age (years)	
20 – 29	56 (23.1)
30 – 39	125 (51.7)
40 – 49	45 (18.6)
≥ 50	16 (6.6)
Mean (SD)	34.8 (7.9)
Gender	
Female	115 (47.5)
Male	127 (52.5)
Religion	
Christianity	75 (31.3)
Islam	163 (67.9)
None	2 (0.8)
Marital status	
Single	51 (21.1)
Married	187 (77.3)
Separated	3 (1.2)
Widow	1 (0.4)
Tribe	
Hausa	109 (45.6)
Fulani	33 (13.8)
Yoruba	40 (16.7)
Igbo	27 (11.3)
Others*	30 (12.6)

*Others – Tiv, Kogi, Zuru, etc

Table 2. Disposition of staff with their crude absence rates

Category of staff	Absenteeism		
	Yes N (%)	No N (%)	Total N (%)
Consultants	7 (6.1)	1 (0.8)	8 (3.3)
Resident doctors	37 (32.2)	6 (4.7)	43 (17.8)
House officers	8 (7.0)	9 (7.1)	17 (7.0)
Pharmacists	1 (0.9)	3 (2.4)	4 (1.7)
Medical laboratory scientist	6 (5.2)	17 (13.4)	23 (9.5)
Nurses	56 (48.7)	91 (71.7)	147 (60.7)
Total	115 (47.5)	127 (52.5)	242 (100.0)

Table 3. Absence measures among the respondents

Absence measure	Value
Incidence of absence (Percentage of staff reporting at least one spell of absence in a year)	115/242 x 100 = 47.5%
Absence frequency (Total number of spells in the year)	330
Frequency rate (Average number of spells/absentee in the year)	330/115 = 2.9 spells (~3spells)
Total estimated duration of spells	793 days
Severity rate (Average duration of spells)	793/330 = 2.4 days
Incapacity rate (Mean number of days lost/absentee in a year)	793/115 = 6.9 days
Number of listed public holidays in a year	11 days
Duration of annual leave/worker	30 days
Total number of scheduled absence days	41 days
Number of working days in a year (52 weeks x 5 working days)	260 days
Total number of scheduled working days in a year (Normal working days after deducting annual leave, overtime and public holidays)	260 – 41 = 219 days
Total number of absence days by respondents (Absence frequency x average duration of spells)	330 x 2.4 = 792 days
Total number of scheduled working days for all respondents	219 x 242 = 52,998
Absenteeism rate (Total number of absent days/total number of scheduled working days for all respondents x 100)	792/52,998 x 100 = 1.5%

Among the health workers, a statistically significant proportion of doctors had been absent from work in the past one year but when disaggregated, it was found more amongst the resident doctors. This is however surprising because empirical evidence has shown that higher cadres of health workers like doctors are less likely to be absent from work [35] and this is buttressed by findings from studies in Nigeria [26,27], Saudi Arabia [36], Thailand [37], Denmark [4] and Switzerland [38] where low sickness absence has been reported among this cadre of HCWs. The high rate of absenteeism observed amongst the doctors especially the Resident doctors may not be wholly due to illness as they do go for outside postings and update courses as pre-requisites for their specialist examinations. The training of resident doctors is competency based requiring a lot of clinical skills and theoretical knowledge coupled

with call duties which may expose them to stress at the work place and thus work absenteeism. Anecdotal evidence has shown that the dearth of qualified health workers especially doctors and nurses coupled with low recruitment drive in Nigerian health sector has increased the doctor and nurse –patient ratios thus exposing them to excessive stress at the work place. The study from Thailand observed that shift work was associated with reduced rate of sickness absence among nurses [37]. Workers with stressful jobs were more likely to be absent from work compared with their other counterparts. Job stress has been identified as a reason for both short and long-term sickness absence [39]. This may encompass means to escape this stress or to recover from illnesses caused by managing the stress [40,41]. In a study on physicians' sickness absence in Finland, it was found that feeling stressed increased the risk of short spells

Table 4. Correlates of work Absenteeism

Correlates	Absenteeism		Test statistics, p value
	Yes N (%)	No N (%)	
Cadre of staff			
Consultants	7 (6.1)	1 (0.8)	$X^2 = 41.00$ $p < 0.001^{**}$
Resident doctors	37 (32.2)	6 (4.7)	
House officers	8 (7.0)	9 (7.1)	
Pharmacists	1 (0.9)	3 (2.4)	
Medical laboratory scientist	6 (5.2)	17 (13.4)	
Nurses	56 (48.7)	91 (71.7)	
Stressful Job			
Yes	84 (54.9)	69 (45.1)	OR = 2.25
No	26 (35.1)	48 (64.9)	$X^2 = 7.8$, $p = 0.005$
Satisfaction with working environment			
No	51 (56.0)	40 (44.0)	$X^2 = 3.49$ $p = 0.061$
Yes	59 (43.4)	77 (56.6)	
Satisfaction with Job			
Yes	91 (43.8)	117 (56.3)	OR = 0.15
No	20 (83.3)	4 (16.7)	$X^2 = 13.5$, $p < 0.001$
Satisfaction with salary			
No	52 (53.1)	46 (46.9)	$X^2 = 1.88$ $p = 0.171$
Yes	58 (43.8)	74 (56.1)	
Engagement in physical activities			
No	58 (43.0)	77 (57.0)	$X^2 = 3.78$ $p = 0.052$
Yes	49 (56.3)	38 (43.7)	

* $p < 0.05$; ** $p < 0.001$ **Table 5. Reasons for absenteeism**

Variables	Number (%)*
Reasons for being absent from work	
Sickness	138 (78.0)
Family problems	59 (33.3)
Attendance at examinations	54 (30.5)
Update/revision courses	56 (31.6)
Marriage	31 (17.5)
Burial	28 (15.8)
Adverse weather conditions	21 (11.9)
Travels	43 (24.3)
Transportation problems	23 (13.0)
Sickness/illness causing absenteeism *	
Malaria	108 (76.6)
Hypertension	21 (14.9)
Upper Respiratory Tract Infection	17 (12.1)
Diabetes Mellitus	13 (9.2)
Road Traffic Accidents	37 (26.2)
Surgeries	28 (19.9)
Diarrhoea disease	35 (24.8)
Person sick/ill	
Self	126 (88.7)
Spouse	36 (25.4)
Children	49 (34.5)
Parents	28 (19.7)

*Multiple response analysis

of absence in male physicians and the risk of short and long spells of absence among head nurses and ward sisters [42].

Workers who were satisfied with their jobs in this study, were less likely to be absent from their work. The relationship between absenteeism and job satisfaction has been found to be inconsistent [35]. In some studies, job satisfaction was found to have influenced absenteeism [43,44] while in others there was no apparent relationship [45,46]. Majority of the workers who were absent from work was due to sickness/illness that affected majorly themselves. A study investigating the causes of absenteeism in the United States revealed that the most prevalent reason of employee absence (34%) was illness [47]. However, sickness absence may in some cases be a subtle way of avoiding adverse work environments or experiences. It may also be the only way to get time off work to attend to other personal matters [48]. The health of an individual is bound to affect how often and how long they are away from their places of work [26, 49]. In Sweden and Norway, health workers with self-reported health complaints had increased risk for sickness absence [50,51]. The sickness suffered by most of the absent workers in our study was malaria. Malaria reportedly accounts for an estimated 60% of outpatient hospital visits in Nigeria, 30% of hospitalizations, 30% of under-five mortalities, 25% of infant mortalities and 11% of maternal mortalities [52-54].

Workplace absenteeism could undermine demand for, quality of and efficiency of health services delivery. However, it may be a barometer for the psychological and physical well-being of health workers and a valuable measure of health systems performance [35].

5. CONCLUSION

Findings from our study showed that up to half of the study subjects experienced at least one spell of absence which was more amongst female workers.. Although absenteeism rate in this study was found to be very low, the findings underscores the need to put in place effective sickness absence surveillance and management aimed at addressing the relevant reasons for absenteeism and improving the working conditions of health workers.

CONSENT

As per international standard or university standard, patient's written consent has

been collected and preserved by the authors.

ETHICAL APPROVAL

As per international standard or university standard, written approval of Ethics committee has been collected and preserved by the authors.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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