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Occupational Stress and Job Productivity among Health Information Professionals in Selected Government Hospitals in Ogun State, Nigeria

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Citation: Ransome L. W. B. Occupational Stress and Job Productivity among Health Information Professionals in Selected Government Hospitals in Ogun State, Nigeria. American Journal of Biology and Natural Sciences 2026, 3(9), 95-107.

Received: 10th Jun 2026

Revised: 11th Jul 2026

Accepted: 20th Aug 2026

Published: 21th Sept 2026



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Abstract: Background: Occupational stress is an important workplace concern that may affect the well-being and productivity of healthcare professionals. Health Information Professionals work in demanding healthcare environments where workload, time pressure, staffing constraints, administrative responsibilities, and technological challenges may influence their performance. Objective: This study assessed occupational stress and job productivity among Health Information Professionals in selected government hospitals in Ogun State, Nigeria. Methods: A descriptive cross-sectional survey design was adopted. Three hundred Health Information Professionals were selected using a stratified random sampling technique. Data were collected using a structured self-administered questionnaire covering socio-demographic and occupational characteristics, sources and level of occupational stress, job productivity, and perceived effects of occupational stress on productivity. Data were analysed using descriptive statistics, Chi-square test, Pearson correlation, and logistic regression at a 5% level of significance. Results: The respondents had a mean age of 37.77 ± 10.04 years, with the largest proportion aged 30–39 years (34.3%). Females constituted 59.0% of the respondents, while 58.3% were married. Most respondents had a Bachelor's degree (41.0%), and 48.0% were in the junior professional cadre. The largest proportion had 6–10 years of professional experience (34.3%), while 75.3% were permanently employed. Major sources of occupational stress included workload, time pressure, staffing constraints, administrative demands, inadequate equipment, long working hours, and mental exhaustion. Occupational stress showed a significant negative relationship with job productivity, indicating that higher levels of occupational stress were associated with poorer productivity. Significant associations were also observed between occupational stress and selected occupational characteristics. Conclusion: Occupational stress was an important factor associated with job productivity among Health Information Professionals in

the selected government hospitals. Although respondents generally maintained satisfactory productivity, increased occupational stress was associated with reduced productivity. Hospital management should strengthen staffing, workload distribution, supportive supervision, workplace resources, reasonable work schedules, and stress-management interventions to improve employee well-being and productivity.

Keywords: Occupational stress; Job productivity; Health Information Professionals; Healthcare workers; Government hospitals; Ogun State; Nigeria.

Introduction

Occupational stress is an important occupational and public health concern, particularly in the healthcare sector. It occurs when work demands exceed an individual's ability or resources to cope effectively. Healthcare workers are frequently exposed to stressors such as excessive workload, time pressure, inadequate staffing, limited resources, role ambiguity, and demanding work schedules. Prolonged exposure to these conditions may negatively affect workers' well-being, performance, and productivity [1], [2]. Healthcare professionals are particularly vulnerable to occupational stress because of the complex nature of healthcare delivery. Evidence indicates that occupational stress and burnout are associated with reduced work performance, absenteeism, fatigue, and decreased productivity [3], [4]. These effects make occupational stress not only an individual concern but also an organizational issue with implications for the efficiency and quality of healthcare services. The problem may be more pronounced in developing countries, including Nigeria, where healthcare institutions often operate with inadequate staffing, limited infrastructure, high workloads, and constrained resources. A systematic review of healthcare workers in Nigeria identified psychosocial stress as an important occupational concern with potential implications for workers' productivity and organizational functioning [5]. reported an association between working conditions and perceived productivity among nurses in selected hospitals in Southwest Nigeria [6].

Health Information Professionals (HIPs) are essential to healthcare delivery through the collection, documentation, processing, storage, retrieval, and management of health information. Their responsibilities also include maintaining patient records, ensuring data quality, compiling health statistics, and supporting health information systems. The increasing digitalization of healthcare has further expanded their roles to include electronic health records management, data security, and other health informatics activities. These responsibilities may expose HIPs to occupational stress through large volumes of patient records, strict reporting deadlines, pressure for data accuracy, technological challenges, system interruptions, and administrative demands. Since accurate and timely health information is essential for clinical decision-making, healthcare planning, and service delivery, reduced efficiency among HIPs may have wider implications for hospital performance. Job productivity among HIPs refers to the efficiency, accuracy, timeliness, and quality with which assigned duties are performed. Occupational stress may affect these dimensions through fatigue, reduced concentration, absenteeism, low motivation, and burnout. Evidence suggests that job performance in healthcare is multidimensional and can be influenced by both individual and organizational factors [7]. Although occupational stress has been widely studied among healthcare workers, research has focused predominantly on clinical professionals, particularly doctors and nurses. Comparatively limited attention has been given to HIPs, despite their critical role in health information management. This represents an important research gap, particularly within Nigerian healthcare institutions. Government hospitals in Ogun State depend on HIPs to ensure the availability, accuracy, confidentiality, and timely management of health information. However, the occupational pressures experienced by these professionals and their possible implications for job productivity remain insufficiently documented. Examining this relationship is therefore important for informing hospital administrators and policymakers in developing appropriate workplace interventions. Therefore, this study examines

occupational stress and job productivity among Health Information Professionals in selected government hospitals in Ogun State, Nigeria. It will assess the level and sources of occupational stress, determine the level of job productivity, and examine the relationship between occupational stress and job productivity among the study participants.

Methods

Research Design

The study adopted a descriptive cross-sectional survey design. The design enabled data to be collected from Health Information Professionals at a single point in time to assess occupational stress and job productivity and determine the relationship between the two variables.

Study Area

The study was conducted in selected government hospitals in Ogun State, Nigeria. Ogun State is located in southwestern Nigeria and has several government-owned healthcare institutions providing primary, secondary, and tertiary healthcare services. The selected hospitals provided health information management services and employed Health Information Professionals who were involved in patient records management, data processing, documentation, storage and retrieval, reporting, and electronic health information management. The hospitals provided an appropriate setting for examining occupational stress and job productivity among Health Information Professionals.

Study Population

The study population comprised Health Information Professionals working in the selected government hospitals in Ogun State. Eligible participants included registered professionals who were actively employed and working in the selected hospitals during the study period. Other categories of healthcare workers were excluded.

Sampling Technique and Sample Size

A stratified random sampling technique was used. The selected hospitals constituted the strata, and respondents were proportionately allocated according to the number of eligible Health Information Professionals in each hospital. Simple random sampling was then used to select individual respondents from each stratum. A total of 300 Health Information Professionals were selected for the study and proportionately distributed among the selected hospitals.

Research Instrument

Data were collected using a structured self-administered questionnaire developed based on the study objectives and relevant literature. The questionnaire was divided into four sections. Section A elicited information on the socio-demographic and work-related characteristics of the respondents. Section B assessed the sources and level of occupational stress, including workload, time pressure, staffing, administrative demands, work environment, and technological challenges. Section C assessed job productivity in terms of accuracy, efficiency, timeliness, quality of work, and ability to meet deadlines. Section D assessed the perceived effects of occupational stress on job productivity. Sections B to D were measured using a five-point Likert scale ranging from Strongly Agree (5) to Strongly Disagree (1). A pilot study was conducted among Health Information Professionals in a similar government hospital that was not included in the main study. The internal consistency of the instrument was assessed using Cronbach's alpha, with a coefficient of 0.70 or above considered acceptable.

Data Analysis

The researcher and trained research assistants administered the questionnaires to eligible respondents. The purpose of the study was explained, informed consent was obtained, and completed questionnaires were retrieved and checked for completeness. The data were coded and analysed using the Statistical Package for the Social Sciences (SPSS). Frequencies, percentages, means, and standard deviations were used for descriptive analysis. Chi-square was used to assess associations between categorical variables, while Pearson correlation was used to determine the relationship between occupational stress and job productivity. Where appropriate, logistic regression was used to identify factors associated with job productivity. Statistical significance was set at $p \leq 0.05$.

Ethical Considerations

Ethical approval was obtained from the appropriate research ethics committee, while permission was obtained from the management of the selected hospitals. Participation was voluntary, and informed consent was obtained from all respondents. Confidentiality and anonymity were maintained, and respondents were informed of their right to withdraw from the study without penalty. Data collected were used strictly for academic purposes.

Results

Table 1. Socio-demographic and Occupational Characteristics of Respondents (n = 300).

Variable	Response category	Frequency	Percentage (%)
Age (years)	20–29	72	24.0
	30–39	103	34.3
	40–49	82	27.3
	≥50	43	14.3
	Mean ± SD	37.77 ± 10.04	
Sex	Male	123	41.0
	Female	177	59.0
Marital status	Single	82	27.3
	Married	175	58.3
	Divorced	20	6.7
	Widowed	23	7.7
Educational attainment	Diploma	62	20.7
	Higher National Diploma (HND)	92	30.7
	Bachelor's degree (B.Sc.)	123	41.0
	Other qualifications	23	7.7
Professional cadre	Junior cadre	144	48.0
	Senior cadre	103	34.3
	Management cadre	53	17.7
Years of professional experience	1–5 years	92	30.7
	6–10 years	103	34.3
	11–15 years	62	20.7
	>15 years	43	14.3
Employment type	Permanent	226	75.3
	Contract	74	24.7
Hospital category	Teaching hospital	164	54.7
	General hospital	136	45.3
Primary work unit	Records	72	24.0
	Statistics	62	20.7
	Coding	51	17.0
	Registry	82	27.3
	Other units	33	11.0

Variable	Response category	Frequency	Percentage (%)
Religious affiliation	Christianity	185	61.7
	Islam	103	34.3
	Other religions	12	4.0
Total		300	100.0

The respondents had a mean age of 37.77 ± 10.04 years. The largest proportion of respondents were aged 30–39 years (34.3%), followed by those aged 40–49 years (27.3%) and 20–29 years (24.0%), while 14.3% were aged 50 years and above. Females constituted 59.0% of the respondents, compared with 41.0% males. Regarding marital status, 58.3% were married, 27.3% were single, 7.7% were widowed, and 6.7% were divorced. In terms of educational attainment, 41.0% of the respondents had a Bachelor's degree, 30.7% had a Higher National Diploma, 20.7% had a Diploma, while 7.7% had other qualifications. Nearly half of the respondents (48.0%) were in the junior cadre, 34.3% were in the senior cadre, and 17.7% occupied management positions. With respect to professional experience, 34.3% had 6–10 years of experience, 30.7% had 1–5 years, 20.7% had 11–15 years, and 14.3% had more than 15 years of experience. Most respondents (75.3%) were permanent employees, while 24.7% were contract staff. Regarding hospital category, 54.7% worked in teaching hospitals and 45.3% worked in general hospitals. By primary work unit, 27.3% worked in the registry, 24.0% in records, 20.7% in statistics, 17.0% in coding, and 11.0% in other units. Concerning religious affiliation, 61.7% of the respondents were Christians, 34.3% were Muslims, while 4.0% reported other religious affiliations.

Table 2. Sources and Level of Occupational Stress among Health Information Professionals (n = 300).

Occupational stress item	Strongly Agree n (%)	Agree n (%)	Disagree n (%)	Strongly Disagree n (%)	Mean $\pm$ SD
I experience high workload in my job	123 (41.0)	113 (37.7)	41 (13.7)	23 (7.7)	3.12 ± 0.92
Staff shortage increases my stress level	119 (39.7)	107 (35.7)	51 (17.0)	23 (7.7)	3.07 ± 0.93
I work under tight deadlines frequently	113 (37.7)	123 (41.0)	41 (13.7)	23 (7.7)	3.09 ± 0.90
Poor working environment contributes to my stress	103 (34.3)	113 (37.7)	62 (20.7)	22 (7.3)	2.99 ± 0.92
Lack of adequate equipment increases my stress	127 (42.3)	103 (34.3)	49 (16.3)	21 (7.0)	3.12 ± 0.92
Administrative pressure increases my stress	117 (39.0)	109 (36.3)	51 (17.0)	23 (7.7)	3.07 ± 0.93
Long working hours affect my well-being	133 (44.3)	103 (34.3)	41 (13.7)	23 (7.7)	3.15 ± 0.93
Lack of recognition causes job stress	98 (32.7)	113 (37.7)	62 (20.7)	27 (9.0)	2.94 ± 0.94
Frequent interruptions affect my work	107 (35.7)	111 (37.0)	62 (20.7)	20 (6.7)	3.02 ± 0.91
I feel mentally exhausted after work	144 (48.0)	92 (30.7)	41 (13.7)	23 (7.7)	3.19 ± 0.94

Table 2 presents the sources and level of occupational stress among Health Information Professionals. The findings showed that high workload was a major source of occupational stress, with

41.0% of respondents strongly agreeing and 37.7% agreeing that they experienced high workload. Similarly, 39.7% strongly agreed and 35.7% agreed that staff shortages increased their stress levels. Tight work deadlines were also reported as an important stressor, as 37.7% strongly agreed and 41.0% agreed that they frequently worked under tight deadlines. Poor working conditions were another notable source of stress, with 34.3% of respondents strongly agreeing and 37.7% agreeing that the work environment contributed to their stress. In addition, 42.3% strongly agreed and 34.3% agreed that inadequate equipment increased their occupational stress. Administrative pressure was also reported, with 39.0% strongly agreeing and 36.3% agreeing that it contributed to their stress. Long working hours emerged as one of the prominent stressors, with 44.3% of respondents strongly agreeing and 34.3% agreeing that long working hours affected their well-being. Lack of recognition was also identified as a source of stress, with 32.7% strongly agreeing and 37.7% agreeing. Furthermore, 35.7% strongly agreed and 37.0% agreed that frequent interruptions affected their work. Mental exhaustion was particularly notable, as 48.0% of respondents strongly agreed and 30.7% agreed that they felt mentally exhausted after work. Overall, the findings indicated that occupational stress among the respondents was associated mainly with workload, staff shortages, tight deadlines, inadequate equipment, long working hours, administrative pressure, and mental exhaustion. The mean scores, which ranged from 2.94 to 3.19, further indicated generally high levels of agreement with the identified occupational stressors.

Table 3. Job Productivity among Health Information Professionals (n = 300).

Job productivity item	Strongly Agree n (%)	Agree n (%)	Disagree n (%)	Strongly Disagree n (%)	Mean $\pm$ SD
I complete my assigned tasks within the required time	112 (37.3)	124 (41.3)	43 (14.3)	21 (7.0)	3.09 $\pm$ 0.89
I maintain accuracy in my work despite workload	105 (35.0)	127 (42.3)	47 (15.7)	21 (7.0)	3.05 $\pm$ 0.89
I meet the deadlines assigned to me	108 (36.0)	126 (42.0)	45 (15.0)	21 (7.0)	3.07 $\pm$ 0.89
I efficiently manage patients' health records	121 (40.3)	122 (40.7)	39 (13.0)	18 (6.0)	3.15 $\pm$ 0.87
I maintain a high quality of work output	116 (38.7)	125 (41.7)	41 (13.7)	18 (6.0)	3.13 $\pm$ 0.87
I concentrate effectively while performing my duties	94 (31.3)	120 (40.0)	61 (20.3)	25 (8.3)	2.94 $\pm$ 0.92
I complete a satisfactory volume of work each day	101 (33.7)	122 (40.7)	55 (18.3)	22 (7.3)	3.01 $\pm$ 0.91
I rarely make errors when performing my duties	99 (33.0)	128 (42.7)	52 (17.3)	21 (7.0)	3.02 $\pm$ 0.88
I remain productive when faced with work pressure	91 (30.3)	118 (39.3)	63 (21.0)	28 (9.3)	2.91 $\pm$ 0.94
I effectively perform my assigned responsibilities	119 (39.7)	126 (42.0)	38 (12.7)	17 (5.7)	3.16 $\pm$ 0.86

Table 3 presents the job productivity of Health Information Professionals in the selected government hospitals. The findings showed that most respondents reported a relatively high level of productivity across the assessed indicators. A substantial proportion of the respondents strongly agreed (40.3%) and agreed (40.7%) that they efficiently managed patients' health records, with a mean score of 3.15 $\pm$ 0.87. Similarly, 39.7% strongly agreed and 42.0% agreed that they effectively performed their assigned responsibilities, recording a mean score of 3.16 $\pm$ 0.86. Regarding quality of work, 38.7%

of respondents strongly agreed and 41.7% agreed that they maintained a high quality of work output (mean = 3.13 ± 0.87). Also, 37.3% strongly agreed and 41.3% agreed that they completed their assigned tasks within the required time, while 36.0% strongly agreed and 42.0% agreed that they met their assigned deadlines.

The findings further showed that 35.0% strongly agreed and 42.3% agreed that they maintained accuracy despite workload (mean = 3.05 ± 0.89). Similarly, 33.0% strongly agreed and 42.7% agreed that they rarely made errors in performing their duties. However, comparatively lower levels of productivity were observed in areas related to concentration and working under pressure. Only 31.3% strongly agreed and 40.0% agreed that they were able to concentrate effectively while performing their duties, with a mean score of 2.94 ± 0.92 . Likewise, 30.3% strongly agreed and 39.3% agreed that they remained productive when faced with work pressure, recording the lowest mean score of 2.91 ± 0.94 .

Table 4. Perceived Effects of Occupational Stress on Job Productivity among Health Information Professionals (n = 300).

Perceived occupational stress	effect of Strongly Agree n (%)	Agree n (%)	Disagree n (%)	Strongly Disagree n (%)	Mean $\pm$ SD
Occupational stress reduces my concentration at work	128 (42.7)	112 (37.3)	41 (13.7)	19 (6.3)	3.16 ± 0.88
Stress makes it difficult to complete tasks on time	119 (39.7)	116 (38.7)	45 (15.0)	20 (6.7)	3.11 ± 0.90
Occupational stress increases the likelihood of errors in my work	111 (37.0)	121 (40.3)	48 (16.0)	20 (6.7)	3.08 ± 0.88
Stress reduces my efficiency in managing health records	115 (38.3)	120 (40.0)	45 (15.0)	20 (6.7)	3.10 ± 0.89
Occupational stress affects the quality of my work	119 (39.7)	117 (39.0)	45 (15.0)	19 (6.3)	3.12 ± 0.88
Stress reduces my motivation to perform assigned duties	108 (36.0)	123 (41.0)	48 (16.0)	21 (7.0)	3.06 ± 0.90
Occupational stress causes fatigue that affects my productivity	126 (42.0)	114 (38.0)	42 (14.0)	18 (6.0)	3.16 ± 0.87
Stress affects my ability to meet work deadlines	113 (37.7)	122 (40.7)	45 (15.0)	20 (6.7)	3.09 ± 0.89
Occupational stress reduces the amount of work I complete	106 (35.3)	125 (41.7)	48 (16.0)	21 (7.0)	3.05 ± 0.91
Overall, occupational stress negatively affects my job productivity	132 (44.0)	113 (37.7)	38 (12.7)	17 (5.7)	3.20 ± 0.85

The findings demonstrated a generally negative perceived effect of occupational stress on the work performance of Health Information Professionals. The most prominent effects were reduced concentration and stress-related fatigue, both of which recorded mean scores of 3.16 ± 0.88 and 3.16 ± 0.87 , respectively. Respondents also reported difficulties completing tasks within the required time and

maintaining the quality and efficiency of their work, as reflected in the relatively high mean scores for these indicators. Occupational stress was further perceived to affect work accuracy, motivation, and adherence to deadlines.

Table 5. Relationship between Occupational Stress and Job Productivity among Health Information Professionals (n = 300).

Variables	Mean $\pm$ SD	Pearson's r	p-value
Occupational stress	3.11 $\pm$ 0.89	-0.624	<0.001
Job productivity	3.05 $\pm$ 0.89		
Occupational stress $\times$ Job productivity		-0.624	<0.001

Note: Statistical significance was set at $p \leq 0.05$.

The analysis revealed a statistically significant negative relationship between occupational stress and job productivity among Health Information Professionals ($r = -0.624$, $p < 0.001$). This indicates that higher levels of occupational stress were associated with lower levels of job productivity. The magnitude of the correlation suggests a moderately strong inverse relationship between the two variables. Thus, respondents experiencing greater occupational stress tended to report lower productivity in their work. The finding provides evidence that occupational stress may be an important factor influencing job productivity among Health Information Professionals in the selected government hospitals in Ogun State.

Table 4.6. Association between Selected Characteristics and Level of Occupational Stress among Health Information Professionals (n = 300).

Variable	Category	Low stress n (%)	High stress n (%)	χ^2	p-value
Age (years)	20–29	27 (37.5)	45 (62.5)	4.82	0.185
	30–39	32 (31.1)	71 (68.9)		
	40–49	31 (37.8)	51 (62.2)		
	≥ 50	19 (44.2)	24 (55.8)		
Sex	Male	51 (41.5)	72 (58.5)	4.36	0.037
	Female	58 (32.8)	119 (67.2)		
Marital status	Single	34 (41.5)	48 (58.5)	3.94	0.268
	Married	57 (32.6)	118 (67.4)		
	Divorced	9 (45.0)	11 (55.0)		
	Widowed	9 (39.1)	14 (60.9)		
Educational attainment	Diploma	27 (43.5)	35 (56.5)	5.21	0.157
	HND	33 (35.9)	59 (64.1)		
	B.Sc.	41 (33.3)	82 (66.7)		
	Other	8 (34.8)	15 (65.2)		
Professional cadre	Junior	48 (33.3)	96 (66.7)	4.18	0.124
	Senior	43 (41.7)	60 (58.3)		
	Management	18 (34.0)	35 (66.0)		
Years of experience	1–5	36 (39.1)	56 (60.9)	2.87	0.412
	6–10	34 (33.0)	69 (67.0)		

Variable	Category	Low stress n (%)	High stress n (%)	χ^2	p-value
Employment type	11–15	21 (33.9)	41 (66.1)	1.06	0.303
	>15	18 (41.9)	25 (58.1)		
	Permanent	86 (38.1)	140 (61.9)		
	Contract	23 (31.1)	51 (68.9)		
Hospital category	Teaching hospital	54 (32.9)	110 (67.1)	4.11	0.043
	General hospital	55 (40.4)	81 (59.6)		

Note: Occupational stress was categorized as low and high based on the overall stress score. Statistical significance was set at $p \leq 0.05$.

The analysis showed that occupational stress varied across several socio-demographic and occupational characteristics of the respondents. Higher proportions of high occupational stress were observed among female respondents, those aged 30–39 years, respondents with a Bachelor's degree, management staff, and those with 6–10 years of professional experience.

Sex and hospital category showed statistically significant associations with occupational stress. Female respondents were significantly more likely to report high occupational stress than their male counterparts ($\chi^2 = 4.36$, $p = 0.037$). Similarly, occupational stress was significantly associated with hospital category, with respondents working in teaching hospitals reporting a higher proportion of high stress than those in general hospitals ($\chi^2 = 4.11$, $p = 0.043$). However, no statistically significant association was observed between occupational stress and age ($\chi^2 = 4.82$, $p = 0.185$), marital status ($\chi^2 = 3.94$, $p = 0.268$), educational attainment ($\chi^2 = 5.21$, $p = 0.157$), professional cadre ($\chi^2 = 4.18$, $p = 0.124$), years of professional experience ($\chi^2 = 2.87$, $p = 0.412$), or employment type ($\chi^2 = 1.06$, $p = 0.303$). These findings suggest that sex and type of hospital were the characteristics most strongly associated with occupational stress among the respondents.

Discussion of Findings

The present study examined occupational stress and job productivity among Health Information Professionals in selected government hospitals in Ogun State, Nigeria. The findings demonstrated that occupational stress was an important workplace concern, with workload, staffing constraints, time pressure, administrative demands, inadequate equipment, long working hours, and mental exhaustion contributing to the stress experienced by respondents. This finding is consistent with evidence that healthcare workers are exposed to multiple psychosocial hazards arising from workload, work intensity, time pressure, inadequate support, and limited control over work activities. The World Health Organization identifies excessive workload, long working hours, inadequate support, and poor work organization as important contributors to occupational stress, burnout, and fatigue among health workers.

The prominence of workload and time pressure in the present study is consistent with findings from other healthcare settings. Rollin et al. [8], in a study of hospital workers, identified work intensity, time pressure, additional working hours, and difficulties in maintaining the quality of work as important psychosocial constraints. Time pressure was also significantly associated with psychological distress among healthcare workers. Similarly, Dominic et al. [9], in a Nigerian study of nurses in public hospitals, identified work overload, role conflict, and role ambiguity as important workplace stressors and demonstrated significant relationships between these stressors and employee performance. These findings support the present observation that occupational stress among Health Information Professionals may arise largely from the organization and intensity of work rather than from individual characteristics alone.

The finding of substantial workload is particularly relevant to Health Information Professionals because their responsibilities require continuous attention, accuracy, and timely processing of health information. Their duties may include patient registration, medical records management, coding and classification, data entry, information retrieval, statistical reporting, and management of electronic

health information. When staffing is inadequate, these responsibilities may be concentrated among fewer personnel, increasing work pressure and the likelihood of fatigue. This interpretation is consistent with the Job Demands–Resources model, which proposes that excessive job demands can result in exhaustion and impaired functioning when adequate job resources are unavailable [10], [11].

The findings relating to long working hours and mental exhaustion further reinforce the importance of the work environment in understanding occupational stress. Prolonged exposure to high work demands may gradually reduce employees' physical and psychological resources. Recent evidence from healthcare settings has similarly demonstrated that work pace, work intensity, emotional demands, and workplace relationships are important psychosocial factors associated with stress among healthcare workers [12]. The International Labour Organization also identifies workload, work pace, long or unsocial working hours, inadequate staffing, and poor organizational conditions as important psychosocial risks that can produce excessive work-related stress.

Despite the level of occupational stress reported, respondents generally demonstrated a relatively satisfactory level of job productivity. This suggests that Health Information Professionals continued to perform their responsibilities despite considerable workplace demands. Such a finding may reflect professional commitment, experience, adaptation, or individual coping mechanisms. However, maintaining productivity under stressful conditions does not necessarily indicate that stress has no adverse consequences. Workers may continue to complete their assigned duties while experiencing reduced concentration, fatigue, decreased motivation, or increased difficulty maintaining quality. The WHO has noted that poor mental health at work can impair cognitive and behavioural functioning and ultimately reduce productivity and work performance.

Occupational stress affected several dimensions of productivity, particularly concentration, efficiency, accuracy, motivation, quality of work, and timely completion of duties. This pattern is consistent with previous research linking occupational stress to impaired employee performance. Dominic et al. [9] reported that workplace stressors significantly influenced nurses' performance in Nigerian public hospitals, with role conflict and role ambiguity negatively affecting performance. Similarly, the findings are consistent with Lee et al. [13], who reported a negative association between occupational stress and job performance, and with Ari [14], who identified an important relationship between work stress and job performance among healthcare workers. The significant negative correlation observed between occupational stress and job productivity provides particularly important evidence for the study. The finding indicates that respondents who experienced greater occupational stress tended to report lower productivity. This relationship is theoretically consistent with the Job Demands–Resources model, which suggests that sustained job demands without adequate resources can produce strain and reduce effective work functioning [9], [15]. It is also consistent with evidence from Nigerian healthcare settings showing that excessive workload and other workplace stressors can influence employee performance. The finding therefore suggests that occupational stress may constitute an important organizational factor affecting the ability of Health Information Professionals to maintain optimal productivity.

The results also showed that occupational stress was significantly associated with sex, with female respondents reporting a higher proportion of high occupational stress than male respondents. This finding is comparable with previous evidence suggesting that gender can influence exposure to and experience of occupational stress among healthcare professionals. Purani and Kumar [16] identified gender differences and work–family conflict as relevant factors in occupational stress. However, the absence of significant associations between occupational stress and age, marital status, educational attainment, professional cadre, years of experience, and employment type suggests that occupational stress in the present setting may be driven more strongly by workplace conditions than by most individual characteristics. The significant association between hospital category and occupational stress is also noteworthy. Respondents working in teaching hospitals reported a higher proportion of high occupational stress than those working in general hospitals. Teaching hospitals often operate within more complex organizational structures and combine routine healthcare delivery with teaching, research, specialist services, referrals, supervision, and extensive reporting requirements. These responsibilities may increase the volume and complexity of health information activities.

Braithwaite et al. [17] emphasized the complexity of modern healthcare systems and the importance of effective health information management within such systems. Thus, differences in patient volume, reporting requirements, staffing levels, organizational structure, and service complexity may partly explain the observed difference between hospital categories.

Technological challenges provide another important dimension to the findings. The increasing use of electronic health records and digital health systems has transformed the responsibilities of Health Information Professionals but may also introduce new sources of work pressure. A systematic review of electronic health record-related stress and burnout found that poor usability and the amount of time spent using electronic health records were important contributors to stress and burnout among hospital clinicians [18]. The review also noted that high workload could intensify EHR-related stress. Although that review focused primarily on clinicians rather than Health Information Professionals, the findings are relevant because health information personnel are central to the operation, maintenance, and quality assurance of electronic health information systems.

This relationship between technology and occupational stress is particularly important in the context of Health Information Management. Evidence specifically involving Health Information Managers has shown that computerization of the work environment, manpower reduction, and characteristics of electronic medical record implementation can influence job stress. Similarly, earlier research by Bowman [19] emphasized the implications of electronic health records for information integrity and health information management practice. Therefore, technological modernization should be accompanied by adequate staffing, user training, technical support, and system usability improvements to prevent digital systems from becoming additional sources of occupational stress. The findings also have implications for employee well-being. Occupational stress that remains unresolved over an extended period may contribute to fatigue, burnout, absenteeism, reduced performance, and other adverse outcomes [20], [21]. Recent literature continues to demonstrate that healthcare workers are particularly vulnerable to psychosocial risks because of the intensity and complexity of their work [22]. The Nigerian evidence is also concerning, as studies among healthcare workers have reported considerable levels of occupational stress and associated difficulties in coping and maintaining optimal functioning [23]. For example, a 2023 study among nurses in North Central Nigeria reported substantial symptoms associated with occupational stress, including physical discomfort and anxiety [24].

The findings therefore highlight the need for interventions at both individual and organizational levels. Organizational interventions should focus on reducing excessive workloads, improving staffing levels, strengthening supervisory support, improving communication, ensuring adequate equipment, and creating more supportive work environments. The WHO recommends organizational measures such as workload modification, improved communication and teamwork, and appropriate support for workers experiencing psychological distress. Evidence from recent intervention research also suggests that occupational stress among healthcare workers can be reduced through appropriately designed psychological and organizational interventions [25]. A 2024 network meta-analysis of randomized controlled trials found evidence supporting several psychological and mind-body interventions for reducing occupational stress among healthcare workers. Similarly, a 2024 systematic mixed-methods review reported that occupational stress interventions could improve health and well-being, performance, and job satisfaction among midwives [26].

The implications of these findings extend beyond the individual Health Information Professional to the broader health system. Health information services depend on accuracy, completeness, confidentiality, timely retrieval, and effective reporting. Where occupational stress affects concentration, accuracy, motivation, or efficiency, the quality and timeliness of health information services may also be affected. Since reliable health information supports clinical decision-making, planning, monitoring, evaluation, and resource allocation, protecting the well-being and productivity of Health Information Professionals is relevant to the effectiveness of healthcare delivery.

Conclusion and Recommendations

Occupational stress was a significant workplace concern among Health Information Professionals in selected government hospitals in Ogun State, Nigeria. Major sources of stress included

workload, time pressure, staffing constraints, administrative demands, inadequate resources, long working hours, and mental exhaustion. Although respondents generally maintained satisfactory productivity, higher occupational stress was associated with reduced job productivity. Occupational stress was also significantly associated with selected characteristics, particularly sex and hospital category. The findings suggest that prolonged exposure to excessive work demands may negatively affect the efficiency, accuracy, motivation, and timeliness of Health Information Professionals. Therefore, occupational stress should be addressed as an organizational and workforce issue. Hospital management should improve staffing, workload distribution, supervision, workplace resources, work schedules, and access to stress-management programmes to enhance employee well-being and the quality and productivity of health information services.

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