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Determinants of Job Satisfaction among Health Workers in Lagos State Teaching Hospital, Nigeria (2019)

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Abstract

Background: This study aimed to assess the determinants of job satisfaction among health workers at the Lagos State University Teaching Hospital, Nigeria.
Materials and Methods: In this survey, a descriptive design was employed among 440 health workers, including doctors, nurses, pharmacists, and laboratory scientists. The participants were recruited via systematic random sampling at every fourth interval. Besides, data were collected in 2019 using a self-administered questionnaire with items on sociodemographic characteristics (SDC), respondents' work history (WK), and assessment of job satisfaction. The Job Satisfaction Survey tool was used to collect data on satisfaction with specific work domains. The overall job satisfaction assessed on a direct single-item scale included outcome variables. Additionally, variables of SDC, WK, and multidimensional domains were explanatory variables used in the logistic regression analysis.
Results: Age increase, being a nurse or a pharmacist as against a laboratory scientist, holding a supervisory position, and an increase in weekly work hours reduced overall job satisfaction. On the other side, the domains of job promotion, an increase in the length of service, and work conditions significantly predicted overall job satisfaction.
Conclusion: In conclusion, job promotion and work conditions were the key work domains that predicted overall job satisfaction among the health workers at the teaching hospital studied.

Keywords: Job Satisfaction, Surveys and Questionnaires, Health Workforce, Nigeria

Introduction

Job satisfaction refers to the attitude, feelings, and expectations of the existing job aspects and ideal preferences people have about their work [1, 2]. In fact, job satisfaction is one of the major factors necessary for the effective productivity of human resources, which is governed by organizational culture; furthermore, it is described as foundational assumptions upon which organizational values and beliefs hinge [3-5].

Health workers are required to provide quality care that positively impacts clients and patients with subsequent improvements in health indices [6]. To achieve this objective, health workers are required to have a great sense of duty, commitment, and satisfaction with their job [4, 7]. In fact, job satisfaction among health workers in Nigeria is found to be low compared to their peers in developed countries [8-10]. Coupled with the low health worker-patient ratio, the lack of job

satisfaction could further be caused by drastic lethargy that in turn may lead to organizational failure [11, 12]. Job dissatisfaction can negatively affect the quality of care, patient care costs, productivity, and patient attendance at the hospital [13-15].

Research has reported environmental and organizational factors as well as personal characteristics as some determinants of job satisfaction [4]. Herzberg's theory identified job dissatisfaction as strongly related to poor relationships among coworkers [16]. This was supported by some researchers, such as Fleury et al who found that the low rate of team conflicts was among the major organizational determinants of job satisfaction [16]. The major organizational determinant of job satisfaction reported by Fleury et al was the low rate of team conflicts. This was consistent with past research confirming Herzberg's theory, which identified job dissatisfaction to be significantly related to poor relationships among coworkers [16]. In this line, Alrawahi employed Herzberg's theory and identified relationships among coworkers, leaders, and professional development as satisfaction motivators among medical laboratory professionals in Oman [17]. In research, professionals receiving adequate social and supervisory support in the workplace were reported to be more satisfied with their jobs and less likely to resign prematurely [18]. Lyons et al, in their study, reported that the predictors of job satisfaction found among health professionals were the feeling of worthwhile accomplishments in one's jobs, opportunities for personal and professional growth, and organizational recognition [19].

A large-scale survey conducted on hospital nurses in 12 European countries indicated personal characteristics as determinants of job satisfaction. Accordingly, it reported that some nurses suffered from the burnout syndrome and job dissatisfaction as a result of poor work environment [20]. Sousa and Sousa in their study introduced some major determinants of job satisfaction, which included having an interest in one's job, working in an independent work environment, having good working relationships with managers and colleagues, receiving a high income, and having the opportunity for career advancement [21]. Other studies found that self-esteem, burnout syndrome, depression, anxiety, and other organizational factors had strong relationships with low levels of job satisfaction [22, 23].

In a study by Hagopian et al among health workers in Uganda, poor working conditions, shortage of hospital supplies, and poor electricity supply were found to negatively affect their level of job satisfaction [24]. In a study conducted in India, hospital nurses were dissatisfied with their job [25]. Among midwives in Ethiopia, the variables of sex, marital status, and level of education were reported as the main personal predictors of job satisfaction [15]. In a study, married midwives were more satisfied with their job than single ones. Accordingly, the authors of the study suggested that it might have been due to life stability and spousal encouragement by partners [15]. A study in Ethiopia among midwives showed that the main personal predictors of job satisfaction were sex, marital status, and level of education. In fact, married midwifes were more satisfied with their job than single ones. Accordingly, this might have been because of life stability, emotional status, and encouragement received from marriage partners [15]. The study by Ayamolowo in Nigeria showed that 67.1% of nurses were dissatisfied with their job as a result of a shortage of modern work-related equipment and low salaries [26]. Bello et al, in their study among medical doctors, reported inadequate pay, high workloads, as well as poor facilities and supervision as determinants of job satisfaction [9, 27].

Generally, the low level of job satisfaction has been challenging the healthcare system in developing countries, resulting in a serious shortage of healthcare workers as a result of brain drain [12]. In this regard, Nigeria is negatively affected by the emigration of skilled healthcare professionals to developed countries. Against this backdrop, this study investigated the determinants of job satisfaction among healthcare providers in Lagos State University Teaching Hospital (LASUTH), Nigeria. Findings from this study can help perform continuous monitoring and documentation of job satisfaction determinants. In addition, they can provide potential solutions for improving the level of job satisfaction and curtailing the continuous emigration of healthcare workers from Nigeria.

Materials and Methods

This descriptive cross-sectional study was conducted among health workers at Lagos State University Teaching Hospital (LASUTH). In fact, Lagos State has the largest population of 17 million among states in Nigeria. Based on the report of the Health Facility Monitoring and Accreditation Agency (HEFAMAA), which was carried out in 2017, there are 3 tertiary hospitals, 26 general hospitals, 256 public health centres, as well as 2,886 private facilities, including hospitals, specialist clinics, and diagnostic centres in Lagos

State. The State's government runs its own tertiary hospital, i.e. LASUTH, which serves as a referral facility and provides specialist care to people of the State.

Participants in this study included doctors, nurses, laboratory scientists, and pharmacists who were working at the hospitals. Only health workers who had been employed at LASUTH for at least one year were enrolled in this study. A sample size (Z2pq/d2) of 420 (including those with no response) was estimated for this study using the prevalence (p) of 56.7% of the health workers who were satisfied with their job in another study [9].

The participants were recruited using a two-stage sampling procedure. In the first stage, all departments and units with eligible cadres of health workers were selected. In the second stage, the sample size was stratified according to the sample size (total population) to obtain a sampling fraction (1:4) that was applied to each professional cadre using the sampling framework. The sample size for each cadre was proportionately allocated to each department and unit using the list of registered members. Accordingly, in each department or unit, systematic random sampling was performed to select the required number of the participants at the predetermined sampling interval (1:4). In addition, the starting point was chosen randomly from numbers 1-4 by balloting.

Data were collected using anonymous self-administered questionnaires from October 2019 to December 2019. The questionnaires were handed out to the respondents to be filled at their leisure time and were retrieved later on.

A questionnaire consisting mainly of close-ended questions and a few open-ended ones was used. The first section contained items on the respondents' sociodemographic characters and work history, while the second one contained some items on the assessment of job satisfaction. In fact, the second section was made up of one single-item job satisfaction measure (In general, how satisfied are you with your work?) and a multidimensional job satisfaction measure taken from the Spector Job Satisfaction Survey (JSS) [28]. The JSS instrument had been administered previously in Nigeria in a study that confirmed its face validity and content validity, with the Cronbach's alpha of 0.75 [29]. The single-item overall measure was scored on a 5-point Likert scale within the range of 1-5. Accordingly, 1 meant very dissatisfied, 2 indicated dissatisfied, 3 meant neither satisfied nor dissatisfied, 4 indicated satisfied, and 5 meant very satisfied.

The JSS developed by Spector (1985) [28] was a 36-item Likert-type scale, with answers ranging from 1 (strongly disagree) to 6 (strongly agree). The nine work domains included pay (pay and remuneration), job promotion (promotion opportunities), supervision (immediate supervisor), fringe benefits (monetary and non-monetary fringe benefits), contingent rewards (appreciation, recognition, and rewards for good work), operating procedures (operating policies and procedures), coworkers, nature of work (job tasks), and communication (communication within the organization). Each item had a score ranging from 4 to 24, with higher scores indicating higher levels of job satisfaction. The items of each work domain included pay (1, 10, 19, 28), job promotion (2, 11, 20, 33), supervision (3, 12, 21, 30), fringe benefits (4, 13, 22, 29), contingent rewards (5, 14, 23, 32), operating procedures (6, 15, 24, 31), coworkers (7, 16, 25, 34), nature of work (8, 17, 27, 35), and communication (9, 18, 26, 36) [28].

Furthermore, scores from all items of all the nine work domains of the JSS were added to give a total score to the JSS instrument. In the JSS, some of the items were written in one direction, either positive or negative. In addition, the negatively worded items were reverse-scored (i.e. 1=6, 2=5, 3=4, 4=3, 5=2, and 6=1). Accordingly, the negatively worded questions were 2, 4, 6, 8, 10, 12, 14, 16, 18, 19, 21, 23, 24, 26, 29, 31, 32, 34, and 36. Total mean scores for the respondents were calculated. In addition, the mean score of each work domain was calculated for the respondents.

According to Spector's recommendations, the 4-item subscales as well as the 36-item total scores could be converted into the categories of satisfied, undecided (which he called ambivalent), or dissatisfied [28]. The total score of 144 or higher (for the 36 items) was grouped as satisfied, score 108 or less was grouped as dissatisfied, and scores >108 but <144 were grouped as undecided (ambivalent) [28]. In a similar way, each domain (consisting of four items each) was grouped into satisfied, dissatisfied, and undecided, using scores 16 or higher, 12 or less, and scores 12 to 16, respectively. Spector's primary purpose by developing the domain-specific 36-item job satisfaction survey was not to estimate overall job satisfaction in a categorical manner but on a continuum. To this end, the single-item measure will be referred to as overall job satisfaction later on in this study.

Job satisfaction was assessed in this survey by two methods; firstly, overall job satisfaction was assessed using a single item; secondly, the respondents' job satisfaction was assessed using different work domains of the JSS. To check for any interference, i.e. confounding or effect-modifying factors, a multivariable analysis was

conducted. To this end, two groups of explanatory and independent variables that could predict overall job satisfaction among the respondents were identified in this study. Accordingly, the first group consisted of the respondents' sociodemographic characteristics and work history, and the second group consisted of the respondents' satisfaction with work domains. An initial bivariate analysis (chi-square test) that included the analysis of the respondents' single-item overall job satisfaction and each variable was performed. Next, the factors significantly associated with the respondents' overall job satisfaction at the screening alpha level of 10% were selected and considered in the multivariate binary logistic regression analysis.

SPSS V.25.0 was used for data entry, editing, and analysis. In addition, a summary of the statistics was generated and used to describe sociodemographic characteristics as well as general and work domain satisfaction. Furthermore, tables were used to display important frequencies and bivariate analysis results. Ethical approval was obtained from the Ethics Committee of Lagos State Health Research under code NHREC04/04/2008.

Results

A total of 450 questionnaires were administered to the respondents, who returned 440 (a response rate of 98%). Over one-third (n=156, 35.5%) were doctors, less than a half (n=213, 48.4%) were nurses, 35 (8.0%) were pharmacists, and 36 (8.2%) were laboratory scientists. The respondents' mean age was 43.1 ± 9.2. Accordingly, less than half of all cadre members (46.4%) aged 41-50 (Table 1), and less than half (n=211, 48.0%) of the respondents were male (Table 1).

Table 1. Bivariate analysis of factors associated with overall job satisfaction among the respondents (sociodemographic characteristics and work history)

Variable		Single-item Job satisfaction		Total (n= 440)	χ^2 (P-value)
		Satisfied (n = 95)	Dissatisfied/ Undecided (n = 345)		
Age group (years)	20 – 30	27 (40.3)	40 (59.7)	67 (100.0)	40.127 (<0.001)
	31 – 40	31 (37.8)	51 (62.2)	82 (100.0)	
	41 – 50	26 (12.7)	178 (87.3)	204 (100.0)	
	≥ 51	11 (12.6)	76 (87.4)	87 (100.0)	
Sex	Male	45 (21.3)	166 (78.7)	211 (100.0)	0.017 (0.897)
	Female	50 (21.8)	179 (78.2)	229 (100.0)	
Marital status	Married	74 (20.4)	288 (79.6)	362 (100.0)	3.078 (0.380)
	Single/Divorced/ Widowed	21 (26.9)	57 (73.1)	78 (100.0)	
No. of children	None	24 (32.0)	51 (68.0)	75 (100.0)	5.786 (0.016)
	At least one	71 (19.5)	294 (80.5)	365 (100.0)	
Occupation	Doctor	20 (12.8)	136 (87.2)	156 (100.0)	47.381 (<0.001)
	Nurse	48 (22.5)	165 (77.5)	213 (100.0)	
	Pharmacist	4 (11.4)	31 (88.6)	35 (100.0)	
	Lab. scientist	23 (63.9)	13 (36.1)	36 (100.0)	
Length of service - present (years)	≤ 10	76 (80.0)	271 (78.6)	374 (100.0)	3.874 (0.144)
	11 – 20	18 (18.9)	74 (21.4)	92 (100.0)	
	21 – 30	1 (1.1)	0	1 (100.0)	
	≥ 31	0	0	0	
Length of service – total (years)	≤ 10	54 (37.2)	91 (62.8)	145 (100.0)	44.315 (<0.001)
	11 – 20	33 (11.8)	246 (88.2)	279 (100.0)	
	21 – 30	7 (50.0)	7 (50.0)	14 (100.0)	
	≥ 31	1 (50.0)	1 (50.0)	2 (100.0)	
Employment category	Permanent	88 (23.2)	292 (76.8)	380 (100.0)	4.042 (0.044)
	Part-time	7 (11.7)	53 (88.3)	60 (100.0)	
Position	Supervisory	37 (38.9)	267 (77.4)	304 (100.0)	51.551 (<0.001)
	Non-supervisory	58 (61.1)	78 (22.6)	136 (100.0)	
Monthly income	≤ 100,000	15 (21.7)	54 (78.3)	69 (100.0)	4.068 (0.254)
	> 100,000	80 (52.6)	291 (78.4)	371 (100.0)	
Total work hours per week	≤ 40	56 (50.5)	55 (49.5)	111 (100.0)	83.518 (<0.001)
	41 – 60	11 (27.5)	29 (72.5)	40 (100.0)	
	61 – 80	15 (16.9)	74 (83.1)	89 (100.0)	
	≥ 81	13 (6.5)	186 (93.5)	200 (100.0)	
Alternate income	Yes	41 (44.1)	52 (55.9)	93 (100.0)	35.249 (<0.001)
	No	54 (16.6)	293 (84.4)	347 (100.0)	

The chi-squared test was used to investigate associations at the significance level of $p \leq 0.05$.

About four-fifths of the respondents (n=362, 82.3%) were married, 354 (80.4%) had 1-4 children, 75 (17%) had no children, while 11 (2.6%) had more than 4 children. In addition, about three in four respondents were Christians. All the respondents had postsecondary education. The mean work hour per week of the respondents was 72.3 ± 23.3.

Table 1 shows sociodemographic characteristics and work history as well as their relationship with overall job satisfaction among the respondents. Overall job satisfaction had a statistically significant association with age group ($p < 0.001$), having a child ($p = 0.016$), occupation ($p < 0.001$), organizational position ($p < 0.001$), having other sources of income ($p = 0.000$), total work hours per week ($p < 0.001$), employment category ($p = 0.044$), and length of service (total work experience) ($p < 0.001$) (Table 1). However, overall job satisfaction had no statistically significant association with sex ($p = 0.897$), marital status ($p = 0.380$), income ($p = 0.254$), and length of service (present work) ($p = 0.144$) (Table 1).

Table 2 shows the bivariate analysis of the relationship between satisfaction with standard work domains and overall job satisfaction among the respondents. The screening level chosen showed that overall job satisfaction had a statistically significant association with job promotion ($p = 0.002$), supervision ($p = 0.042$), nature of work ($p = 0.035$), and operating procedures (0.055) (Table 2). However, overall job satisfaction had no statistically significant association with the domains of pay ($p = 0.339$), contingent rewards ($p = 0.203$), fringe benefits ($p = 0.673$), coworkers ($p = 0.422$), and communication ($p = 0.370$) (Table 2).

Table 2. Bivariate analysis of the relationship between overall job satisfaction and standard work domains among the respondents

Variable		Single-item job satisfaction		Total	χ^2 (P-value)
		decided (n= 345)	Satisfied Dissatisfied/Un (n= 95)		
Pay	Satisfied	28 (24.8)	85 (75.2)	113 (100.0)	0.913
	Dissatisfied/Undecided	76 (80.0)	246 (71.3)	322 (100.0)	(0.339)
Job promotion	Satisfied	37 (31.9)	79 (68.1)	116 (100.0)	9.883
	Dissatisfied/Undecided	58 (17.9)	266 (82.1)	324 (100.0)	(0.002)
Supervision	Satisfied	43 (26.9)	117 (73.1)	160 (100.0)	4.147
	Dissatisfied/Undecided	52 (18.6)	228 (81.4)	280 (100.0)	(0.042)
Fringe benefits	Satisfied	24 (23.1)	80 (76.9)	104 (100.0)	0.178
	Dissatisfied/Undecided	71 (68.4)	265 (78.9)	336 (100.0)	(0.673)
Contingent rewards	Satisfied	20 (17.4)	95 (82.6)	115 (100.0)	1.622
	Dissatisfied/Undecided	75 (23.1)	250 (76.9)	325 (100.0)	(0.203)
Operating conditions	Satisfied	34 (27.6)	89 (72.4)	123 (100.0)	3.693
	Dissatisfied/Undecided	61 (19.2)	256 (80.8)	317 (100.0)	(0.055)
Coworkers	Satisfied	37 (23.7)	119 (76.3)	156 (100.0)	0.646
	Dissatisfied/Undecided	58 (50.5)	226 (79.6)	284 (100.0)	(0.422)
Nature of work	Satisfied	41 (27.3)	109 (72.7)	150 (100.0)	4.433
	Dissatisfied/Undecided	54 (53.7)	236 (72.5)	290 (100.0)	(0.035)
Communication	Satisfied	26 (19.0)	111 (81.0)	137 (100.0)	0.802
	Dissatisfied/Undecided	69 (22.8)	234 (77.2)	303 (100.0)	(0.370)

A chi-squared test was used to investigate associations at the significance level of $p \leq 0.05$.

Table 3 shows the binary logistic regression model of overall job satisfaction among the respondents. This model was significantly reliable (Omnibus test, $\chi 2= 135.841$, $p < 0.001$), which correctly predicted that 85.5% of the respondents had overall job satisfaction. Additionally, the largest contributor to the model was job promotion with a Wald value of 14.527.

In this model, age was an independent statistically significant predictor of job satisfaction (adjusted odds ratio (AOR) = 0.927; 95% confidence interval (CI) = 0.872 – 0.986). A one-year increase in age decreased overall job satisfaction among the respondents by about 7%. The professional cadre of respondents was also a significant predictor of overall job satisfaction. Both nurses (AOR = 0.172; 95% CI = 0.068 – 0.438) and pharmacists (AOR = 0.127; 95% CI = 0.029 – 0.555) were less satisfied with their jobs than laboratory scientists, with the odds ratio of overall job satisfaction reduced by 83 and 87% among nurses and pharmacists, respectively. However, the model revealed that

doctors (AOR = 0.357; 95% CI = 0.104 - 1.220) were less satisfied with their jobs than laboratory scientists; nevertheless, the difference was not statistically significant (Table 3).

A one-year increase in the total number of years in all employment (AOR = 1.166; 95% CI = 1.069 – 1.272) independently increased the odds ratio of overall job satisfaction among the participants by about 17%. In addition, the odds of having overall job satisfaction in the participants in supervisory positions (AOR = 0.290; 95% CI = 0.135 - 0.621) had a reduction of 70% compared to those in non-supervisory positions. According to the model, with a one-year increase in the weekly work hours (AOR = 0.969; 95% CI = 0.950 – 0.989), the odds of having overall job satisfaction decreased by about 3%.

Only two standard work domains independently predicted overall job satisfaction. The participants who were satisfied with their promotion opportunities (AOR = 3.301; 95% CI = 1.786 - 6.099) had about a 230% increase in the odds of having overall job satisfaction. Similarly, satisfaction with operating work conditions (AOR = 2.041; 95% CI = 1.092 - 3.815) predicted overall job satisfaction among the respondents. Accordingly, the odds of having overall job satisfaction were twice as high among those satisfied with working conditions as those satisfied with operating work conditions.

Table 3. Multivariate binary logistic regression model of job satisfaction among health workers at Lagos State University Teaching Hospital

Model variables	Reference category	β	P-value	AOR*	95% Confidence Interval	
Age		-0.075	0.016**	0.927	0.872	0.986
Professional cadre						
Doctors	Lab scientist	-1.031	0.100	0.357	0.104	1.220
Nurses	Lab scientist	-1.758	< 0.001**	0.172	0.068	0.438
Pharmacists	Lab scientist	-2.065	0.006**	0.127	0.029	0.555
Total employment years		0.153	0.001**	1.166	1.069	1.272
Category - Permanent	Contract staff	0.862	0.091	2.369	0.870	6.449
Position - Supervisory	Non-supervisory	-1.238	0.001**	0.290	0.135	0.621
Weekly work hours		-0.031	0.002**	0.969	0.950	0.989
Other sources of income – Yes	None	0.590	0.074	1.804	0.944	3.444
Satisfaction with promotion	Dissatisfied/ Undecided	1.194	< 0.001**	3.301	1.786	6.099
Satisfaction with supervision	Dissatisfied/ Undecided	0.033	0.912	1.034	0.576	1.855
Satisfaction with operating conditions	Dissatisfied/ Undecided	0.713	0.025**	2.041	1.092	3.815
Satisfaction with nature of work	Dissatisfied/ Undecided	-0.201	0.519	0.818	0.443	1.509
Having a child – No	Having at least a child	-0.004	0.991	0.996	0.454	2.184
Constant		2.712	0.017	15.066		

*AOR (adjusted odds ratio); **Statistically significant (two-tailed test)

Discussion

This study aimed to assess job satisfaction determinants among healthcare providers at Lagos State Teaching Hospital. Accordingly, findings from this study led to the creation of a prediction model for overall job satisfaction among healthcare providers in a tertiary health institution in Lagos, Nigeria. In fact, the participants' age, professional cadre members, total number of employment years, non-supervisory positions, weekly work hours, job promotion, and operating work conditions were independent predictors of overall job satisfaction among the study population.

In terms of the respondents' age, about half of them were between the ages 41 and 50. The respondents' age group in this study was different from that in another study on job satisfaction among clinical and non-clinical staff in a teaching hospital in Lagos by Coker et al [30]. Accordingly, in their study, about 23% of the respondents were 40 years old or older, whereas in the current study, over half (66.2%) of the respondents were aged 40 or older, which could have been the reason for different levels of job satisfaction observed.

This study showed that job satisfaction decreased with age, though there might not exist a linear

relationship. This finding was contrary to those of several past studies [31-33]. However, other studies reported that job satisfaction did not increase with age [34, 35]. The reason for this could be that a negative relationship exists in a population with a closer age range, yet the relationship may be positive with a wider gap. This phenomenon can be investigated further by the nonparametric spline regression. The mixed picture, the widely varying shape, and the linearity of the relationship between job satisfaction and age could have been due to some unknown underlying psychological aging processes that require further investigations.

The male-to-female ratio among the respondents of the present study was about 1:1, which is comparable to the study by Coker et al who found a male-to-female ratio of about 1:1 among health workers in Lagos [30]. In addition, the male to female ratio among health workers remained persistent, probably because of the demanding nature of medical education and the medical profession. This is likely to be less attractive to women, for one would expect more women in this profession, given the stability of the job. Generally, research shows that women have higher job satisfaction levels than men, mainly because they have lower expectations at work [36]. However, in a study, gender did not account for any difference in overall job satisfaction among the respondents, as it has been shown that differences in expectations actually fade with higher education levels [36].

Regarding professional cadre members, our study showed that job satisfaction scores were higher among laboratory scientists than in other cadres of health workers. This was inconsistent with the study by Martins et al who reported a high level of satisfaction among physicians in Yola [37]. This may partly explain why job satisfaction among the population of doctors did not show statistically significant differences from that among laboratory scientists in the controlled multivariate model. However, differences in job satisfaction appear to be valid, for they existed among the population of nurses and pharmacists even in the controlled model.

It was not clear what factors contributed to greater job satisfaction among the laboratory scientists, but it may have been associated with their level of job expectation. This implies that their job might meet their level of expectation as against that of other categories of health workers. In addition, this could be due to the fact that laboratory scientists had better working conditions than other cadre members of health workers.

In fact, both bivariate and multivariate binary logistic regressions veirified that laboratory scientists had a higher level of job satisfaction than other cadre members. However, it could be partly due to the statistical imprecision resulting from fewer numbers of laboratory scientists enrolled, as demonstrated at wider confidence intervals for the adjusted odds ratio, compared to the AOR from other variables.

Given the total number of employment years, respondents with more than 10 years of employment experience had higher levels of job satisfaction than those with less than 10 years. This was in line with the studies of Khamlub et al and Bello et al in Nigeria, who reported that the longer the length of stay was, the more satisfied the workers tended to be [27, 38]. Accordingly, this is explainable in the sense that employees with more experience had a better chance of promotion; in addition, they were more likely to have more fringe benefits and higher salaries, which created a stronger sense of job satisfaction among them. This study showed that work experience was independently associated with overall job satisfaction as well. Besides, this could be associated with a feeling of overall life satisfaction. In this study, overall life satisfaction predicted overall job satisfaction.

Respondents with supervisory positions and those who were satisfied with communication at work were five times and twice, respectively, more likely to be satisfied with their jobs than those who did not. In the same vein, other studies reported that good communication tended to promote a greater understanding of issues among staff and a desire to reach solutions reflecting a consensus; in addition, designing a system of open communication among workers, regardless of their position, largely contributed to job satisfaction [27, 39, 40].

Furthermore, respondents with supervisory positions were more satisfied with their jobs than those without supervisory positions. This is consistent with the study by Amarasena et al in Sri Lanka among university lecturers, who reported a difference in job satisfaction levels based on their work and supervisory status [41]. Accordingly, giving more responsibilities to employees could be linked to feelings of recognition and involvement in attaining organizational goals, thereby leading to higher job satisfaction.

Getting a promotion, especially when it is due, appears to be a critical factor in sustaining workforce health. Some professionals in the health staff may feel dissatisfied with the level they can attain in the civil service. This has been creating

intense professional rivalry among health professionals, thereby leading to perennial industrial unrest in the health sector. Promotion opportunities may be limited and tied to the completion of higher education, which may not be obtained in other sectors of the civil service.

It is not surprising that work conditions were a predictor of job satisfaction among health professionals. This could be supported by several studies, which appears to be more important than other factors, such as pay and contingent rewards. Additionally, this finding was supported in another study among resident doctors [42]. In fact, poor working conditions at hospitals in Nigeria have been a major cause of the drive for greener pastures.

This study had some limitations. Accordingly, the inclusion criteria were restricted participants to health workers who worked for at least one year at a hospital. This implies that findings from this study might not be representative of job satisfaction determinants among recently employed health workers. Furthermore, the standard work facets investigated in this study were the nine domains of the JSS tool. However, there are potentially more relevant standard work facets not included in the study. Nevertheless, the determinants explored were not comprehensive, and the model's performance was very fine, having been able to correctly classify 86% of the participants.

Conclusion

Job promotion and work conditions were the key work domains that predicted overall job satisfaction among health workers in the institution studied. Accordingly, hospital managers should be proactive in terms of promoting health workers and improving their work conditions to improve job satisfaction and productivity.

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