

JOB SATISFACTION AND PSYCHOLOGICAL HEALTH AMONG HEALTH WORKERS IN LAGOS STATE TEACHING HOSPITAL, NIGERIA

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ABSTRACT

Background: Dissatisfactions found in various jobs have been identified as workplace stressors that can directly influence an employee's psychological and physical health. This study assessed job satisfaction and its relationship with the psychological health of health workers at the Lagos State University Teaching Hospital (LASUTH).

Methods: The study was a descriptive cross-sectional survey conducted among 440 health workers in LASUTH. Participants were selected using the stratified sampling technique with the probability proportionate to size method. Data was collected using a self-administered questionnaire consisting of three sections: sociodemographic characteristics and work history, the Spector Job Satisfaction Survey (JSS) and the General Health Questionnaire short version 12 (GHQ-12). Apart from the multidimensional JSS, the overall job satisfaction was also assessed using the single-item measure. Data was analysed with SPSS version 25.0. The level of statistical significance was $p < 0.05$.

Results: The mean age of respondents was 43.1 ± 9.2 years. Only 95 (21.6%) respondents expressed satisfaction on the single-item measure. Based on the JSS, the mean job satisfaction score was 126 ± 11.1 and mean GHQ score was 2.88 ± 2.43 . There was a consistent weak negative correlation between job satisfaction scores and GHQ scores ($p < 0.001$). Furthermore, respondents who were satisfied with their job were less likely to have psychological morbidity ($p < 0.001$).

Conclusion: Job satisfaction among respondents was low. This was associated with a high level of psychological morbidity. There is need for further investigations on the contemporary causes of job dissatisfaction.

Keywords: Job satisfaction; Psychological health; Surveys and questionnaires; Workplace; Correlation; Physician

INTRODUCTION

Job satisfaction is connected to several sets of variables associated with individual characteristics, expectations regarding workplaces and organizations, as well as relationships with other professionals.^{1,2} Spector defined it as the extent to which people like or dislike their job.³ It is a measure of workers' contentedness with their job or individual aspects of their job such as satisfaction with pay, promotion, supervision, fringe benefit, contingent rewards, operating procedures, coworkers, nature of work or communication among coworkers.³ It has to do with the positive emotional feelings that an individual has towards his or her job.^{4,5}

An individual experiences job dissatisfaction when the expectations of the existing job and their ideal preferences are not met.⁶ Earlier studies have revealed lack of job satisfaction to be one of the primary predictors why people quit their jobs.^{7,8} Recent studies show deterioration in the levels of job satisfaction

among health workers in southern Nigeria when compared with earlier studies. Job satisfaction was mostly above average ranging from 40-84% in studies conducted over one decade ago among doctors and nursing in Benin,⁹⁻¹¹ among doctors in Calabar,¹² and Ibadan.¹³ However, recent study involving resident doctors in four southern teaching hospitals in southern Nigeria demonstrated a massive deterioration to about 20%.^{14,15} A similar recent study conducted among health professionals in a federal tertiary hospital in Enugu showed that less than a quarter were satisfied with each of financial remuneration, infrastructure/tools, welfare packages and training/sponsorships.¹⁶

Dissatisfactions found in various jobs have been extensively known to be a workplace stressors that can directly influence an employee's psychological and physical health status.⁶ Psychological health is based on a person's ability to interact with others and their

environment. It signifies an individual's sense of well-being and competence, and their ability to realize their full potential.¹⁷ Psychological morbidity refers to the diagnosable disorders or incidences in which mental health deteriorates to the point where it hampers the ability to function socially and productively.¹⁷ And the individual often experiences insomnia with features of depression and anxiety.¹⁸

Organizations are known to have a culture which is often referred to as; attitudes, norms and expectation, and they are found to have significant association with job satisfaction.¹⁹ Health facility center is a complex environment where personal, interpersonal and organizational factors have interplay with stress and burnout based on the level of satisfaction derived from the job.^{10, 20, 21} This results in health professionals exhibiting negative attitudes toward their clients, less productive, with possibility of quitting the job prematurely which in turn affects both service continuity and client recovery.²²

In developing countries, the health sector has inadequate doctor-patient ratio which has a negative impact on health service delivery as this creates a large burden of work on the small number of available work force and affect their health and well-being. Patients are also affected as this increase their waiting time, cost and quality of care.²³ Other health cadres are also affected in this regard. Shortage of human resource in the health sector is a big challenge in many countries in Africa. Nigeria is also grossly affected as her skilled health professionals migrate in large numbers to developed countries mostly due to low level of job satisfaction owing to poor working conditions, low and irregular wages among others.²³⁻²⁵

Over many decades, studies have been ongoing to find out the relationship between job satisfaction, workplace stress and its effects on both physical and psychological health.²⁶ Many studies have found close links between mental health and job satisfaction. Psychological health disorder outcome in a study conducted among doctors in Calabar showed that about a fifth of the respondents were dissatisfied with their jobs and had increased likelihood of psychological disorder.^{12, 27} As the level of job satisfaction assessed in recent studies appeared to deteriorate, it is prudent to suspect that this might impact on the psychological health of health workers. This study was therefore, conducted to assess the level of job satisfaction among health workers in Lagos University Teaching Hospital (LASUTH), their level of psychological health and the correlation between job satisfaction and psychological health.

METHODOLOGY

Study Setting

The study was conducted at the Lagos State University Teaching Hospital (LASUTH). Lagos State is the most populous state in Nigeria, with an estimated population of about 17 million. Statistics from the healthcare facilities monitoring and accreditation agency conducted in 2017, shows that there are 3 tertiary hospitals, 26 registered general hospitals, 256 public healthcare centres, 2886 private hospital/specialist clinics and diagnostic centres. The state government runs its own tertiary hospital, Lagos State University Teaching Hospital (LASUTH). It serves the need of a tertiary referral health facility, providing specialist care for the teeming populace in the state. LASUTH is one of the foremost teaching hospitals in West Africa, located in Government Reserved Area (GRA), Ikeja, Lagos. It was established on the 25th of June, 1955, initially as a general hospital by the old Western Regional Government, to provide health care services to the people of Ikeja and its environment. It developed over the years from a cottage hospital to a tertiary health care facility, where health professionals are trained, and high quality clinical services are provided. The Lagos state government formally converted the Ikeja General Hospital to the LASUTH in July 2001. As at January 2019, there were 559 doctors, 954 nurses, 146 laboratory scientists and 129 pharmacists under the employment of LASUTH, Ikeja.

Study Design

The study was a descriptive cross-sectional survey conducted among health workers in LASUTH.

Study Population

Participants included doctors, nurses, laboratory scientists and pharmacists currently working at the hospitals. Only health workers who had worked for at least one year in the hospital were enrolled in the study. A minimum sample size of 377 was estimated from the sample size formula for estimating simple proportion, given a prevalence of job satisfaction at 56.7%.¹² Participants were recruited using stratified sampling technique. Stratification was according to the four selected occupations (i.e. doctors, nurses, pharmacists and lab scientists) using the probability proportionate to size method. The estimated sample size of 420 was divided by the total population of health workers 1788 in the four professional cadre giving the required proportion (1:4) of each to be selected. Thus, each department/unit with the eligible cadre of health workers were visited and staff lists were obtained. A number was randomly selected from 1-4 by balloting. This indicated the starting point of the systematic random sampling for staff using the

ratio 1:4. Selected persons were contacted and informed consent was obtained. Respondents who were not available or who refused consent or had not worked in the hospital for the required one year were replaced by the immediate next person on the list. Modalities for questionnaire retrieval were discussed with participants as convenient.

Data Collection

Data was collected using anonymous self-administered questionnaires from October 2019 to December 2019. The questionnaires were distributed to the respondents to fill at their leisure time and were retrieved after a while.

The questionnaire consisted of mainly close-ended questions and a few open-ended questions. The questionnaire was adopted from the Job Satisfaction Survey (JSS) and the General Health Questionnaire (GHQ-12).^{3,28} The questionnaire was divided into three sections; section one was on sociodemographic characteristics and job history of participants, section two contained the single-item job satisfaction assessment and the JSS and section three contained the GHQ-12 that assessed the psychological health of the participants.

The single-item job satisfaction was a Likert scale score of respondents' perceptions of overall satisfaction with their job. The score ranged from 1 (very dissatisfied) through 5 (very satisfied). The JSS was developed by Spector and contained nine domains and 36-item Likert-type scale with answers ranging from 1 (strongly disagree) to 6 (strongly agree).³

The GHQ was developed by Goldberg to measure levels of psychological distress.²⁸ The GHQ-12 consists of 12 items, each of which is evaluated by four indexes. The two most commonly used scoring methods are 4-point Likert-type scales with answers ranging from 0 to 3 (0, 1, 2, 3) and a bimodal scoring method of 0 and 1 (0, 0, 1, 1).

Data Analysis

Data management was done using the IBM SPSS Statistics 25.0 (IBM Corp, NY). For each respondent, scores on the single-item job satisfaction ranged from 1-5 while on the JSS, scores ranged from 36-216. The cut-off for overall/general satisfaction on the JSS multidimensional scale has been described as 144.³

Both GHQ scoring method, the bimodal scoring (0, 0, 1, 1) and Likert scoring (0, 1, 2, 3) system were adopted to score the psychological health of the respondents derived from the GHQ-12 instrument.

Scores were added across the 12-items to give a total score. The total score is obtained by summing the responses and higher scores indicated more psychological distress. The GHQ sum scores for the GHQ-12 instrument ranged from 0-12 while the Likert sum scores for the GHQ-12 instrument ranged from 0-36. A cut off of 2/3²⁹ on the GHQ sum score and a cut off of 8/9 on the Likert sum scores, indicated a positive screen for potential psychological morbidity in respondents.^{29,30}

Spearman's rank correlations coefficient with its p-value was calculated for the correlation between job satisfaction scores (JSS and single-item overall job satisfaction) and psychological health scores (GHQ score and Likert score). The Chi-squared test was used to assess the association between categorical job satisfaction classification and probable psychological morbidity among respondents. The level of statistical significance chosen was ≤ 0.05 .

Ethical approval (Ref: NHREC04/04/2008) dated 10th September, 2019, was obtained from the Health Research and Ethics Committee of LASUTH. Participants were given written informed consent forms. The data collected from this study was only to be used for the purpose of research. Serial numbers rather than names were used on questionnaires in order to ensure participants anonymity.

RESULT

A total of 450 questionnaires were distributed and 440 were retrieved giving a response rate of 98%. About a third 156 (35.5%) were doctors, 213 (48.4%) were, 35 (8.0%) were pharmacists and 36 (8.2%) were laboratory scientists. Mean age of respondents was 43.1 ± 9.2 years. Close to half of all occupational groups (46.4%) belonged to the age group of 41 – 50 years (Table 1), 211 (48.0%) of the respondents were male while 239 (52.0%) were female (Table 1). Most respondents 380 (86.4%) had permanent employment while 60 (13.6%) were contract staff. Only about a fifth 93 (21.1%) of participants had other sources of income.

A large proportion of respondents 362 (82.3%) were married, 354 (80.4%) had between one to four children, 75 (17%) of the respondents had no children while 11 (2.6%) had more than four children. About three-quarters of all respondents were Christians while very few had other religious beliefs. All respondents had post-secondary education. The mean working hours per week for the respondents was 72.3 ± 23.3 hours.

Table 1: Sociodemographic characteristics and work history of respondents

Characteristics	Frequency (n=440)	Percent
Age (years)		
≤ 30	67	15.2
31-40	82	18.6
41-50	204	46.4
≥ 51	87	19.8
Ethnicity		
Yoruba	295	67.0
Igbo	131	29.8
Hausa	11	2.5
Others	3	0.7
Marital status		
Single	74	16.8
Married	362	82.3
Widowed	2	0.5
Divorced	2	0.5
Education		
B.Sc	98	22.3
M.Sc	191	43.4
PhD	70	15.9
Others	81	18.4
Position in organization		
Supervisory	304	69.1
Non-supervisory	136	30.9
Monthly income		
< 50,000	7	1.6
50,000 – 100,000	62	14.1
101,000 – 150,000	115	26.1
> 150,000	256	58.2
Years at present work		
≤ 10	347	78.9
11-20	92	20.9
21-30	1	0.2
Total number of years (all employments)		
≤ 10	145	33.0
11-20	279	63.4
21-30	14	3.2
≥ 31	2	0.4
Work hours per week		
≤ 40	111	25.2
41-60	40	9.1
61-80	89	20.2
≥ 80	200	45.5

Job satisfaction among respondents

Based on the single-item overall job satisfaction assessment, only 95 (21.6%) of respondents were either satisfied or very satisfied with their work (Table 2). Based on the 36-item job satisfaction survey, mean job satisfaction score of respondents was 126.2 ± 11.1 and only 21 (4.8%) scored above the cutoff for overall/general job satisfaction.

Psychological health of respondents

The mean total GHQ score for the respondents was 2.88 ± 2.43 using the Bi-modal GHQ scoring method, and a mean of 10.90 ± 3.49 using the Likert scale. Based on the GHQ scoring method, 222 (50.5%) had psychological morbidity and based on the Likert scoring, 329 (74.5%) had psychological morbidity.

The job satisfaction scores based on the single-item assessment was negatively correlated with both the GHQ scoring ($\rho = -0.106$) and the Likert scoring ($\rho = -0.052$) of the GHQ-12 instrument. However, only the correlation with the GHQ scoring was statistically significant ($p = 0.027$) (Table 3). This implied that an increase in the job satisfaction scores (higher job satisfaction) was associated with a decrease (improved psychological health) in scores on the GHQ-12 instrument.

The job satisfaction scores based on the JSS assessment was also negatively correlated with both the GHQ scoring ($\rho = -0.364$; $p < 0.001$) and the Likert scoring ($\rho = -0.178$; $p < 0.001$). Both correlations were statistically significant.

Table 2: Overall level of job satisfaction (single-item) and mean job satisfaction (single-item and Spector JSS)

Level of satisfaction	Frequency (n= 440)	Percent
Very Satisfied	3	0.7
Satisfied	92	20.9
Undecided	206	46.8
Dissatisfied	66	15.0
Very Dissatisfied	73	16.6
<i>Overall</i>	<i>Mean</i>	<i>Standard deviation</i>
Single-item	2.7	0.99
Spector JSS	126.2	11.1

Table 3: Overall correlation between overall job satisfaction scores and GHQ scores

Job satisfaction among all respondents	Likert Score	GHQ Score	
Job satisfaction (JSS score)	rho= -0.052 0.279	rho= -0.106 0.027*	N= 440
Single item job satisfaction score	rho= -0.178 <0.001*	rho= -0.364 <0.001*	N= 440

rho= Spearman's rank correlation coefficient, *Statistically significant (2-tailed)

For the categorical classification of job satisfaction, there was a statistically significant association between participants who expressed overall satisfaction with their work and not having psychological morbidity. About twice the proportion 76 (80.0%) of participants who were satisfied with their work did not have psychological morbidity compared to 142 (41.2%) of participants who were dissatisfied with/undecided about their work ($p < 0.001$) (Table 4). However, there was no significant difference when the Likert scoring system was used to categorise psychological morbidity of participants ($p = 0.993$).

Based on the JSS categorisation of job satisfaction, there was statistically significant association between job satisfaction and both the GHQ scoring ($p < 0.001$) and the Likert scoring ($p < 0.001$) of psychological morbidity (Table 5). On the GHQ scoring, all participants 21 (100%) who were satisfied had no psychological morbidity compared to 197 (53.0%) of participants who were dissatisfied/undecided. On the Likert scoring, 15 (71.4%) of participants who were satisfied with their work had no psychological morbidity compared to 96 (22.9%) of participants who were dissatisfied/undecided. Thus, job satisfaction appeared protective on psychological morbidity.

Table 4: Relationship between overall job satisfaction (single item measure) and psychological morbidity (GHQ and Likert scoring systems) among the respondents

Job satisfaction	Psychological morbidity		Total (440)	χ^2 (p-value)
	GHQ scoring			
	Yes (222)	No (218)		
Satisfied	19 (20.0)	76 (80.0)	95 (100.0)	44.953 (<0.001)*
Dissatisfied/undecided	203 (58.8)	142 (41.2)	345 (100.0)	
	Likert scoring		Total (440)	0.0001 (0.993)
	Yes (329)	No (111)		
Satisfied	71 (74.7)	24 (25.3)	95 (100.0)	
Dissatisfied/undecided	258 (74.8)	87 (25.2)	345 (100.0)	

Table 5: Relationship between overall job satisfaction (multidimensional JSS measure) and psychological morbidity (GHQ and Likert scoring) among the respondents

Job satisfaction	Psychological morbidity		Total (440)	χ^2 (p-value)
	GHQ scoring Yes (222)	No (218)		
Satisfied	0 (0.0)	21 (100.0)	21 (100.0)	22.457 (<0.001)*
Dissatisfied/Undecided	222 (47.0)	197 (53.0)	419 (100.0)	
	Likert scoring			
Likert scoring	Yes (329)	No (111)	Total (440)	24.955 (<0.001)*
Satisfied	6 (28.6)	15 (71.4)	21 (100.0)	
Dissatisfied/Undecided	323 (77.1)	96 (22.9)	419 (100)	

*Statistically significant

DISCUSSION

The study has a strong internal and external validity with the high response rate recorded probably because of the interest in the respondents in expressing their position on how satisfied they were with their jobs. The distribution of respondents among the occupations was also a reflection of their distribution within the hospital with nurses making up nearly half of participants. Thus, the study provides a generally good weighting of job satisfaction among health workers. In terms of age, our study differed from several other studies on job satisfaction conducted among doctors and nurses.^{9-12,14,15,27,31} In this regard, participants in this study were reasonably older than participants in other studies with about two-thirds being older than 40 years old. Previous studies among doctors recruited mainly resident doctors who were clearly younger than the true age distribution of the general health workers' population. From the literature, it is known that older ages and years of experience on the job are positively associated with job satisfaction.³² The male to female ratio among the respondents in this study was about 1:1. The sex ratio among health workers was more favourable towards females compared to the ratio in previous study among doctors only.^{10,12} Studies have shown that women generally have higher job satisfaction level than men mainly because they have lower expectations at their work.³³ The sociodemographic and work history of participants in this study therefore, appeared to favour higher level job satisfaction than may actually obtain for the average population of health workers. Thus, the job satisfaction levels reported in this study could be an overestimate and should be interpreted in that context.

Studies conducted earlier about 10 or more years ago appeared to show average job satisfaction levels where at least one in two health workers reported being satisfied with their job.⁹⁻¹² This is sharp contrast to

findings in this study and other recent studies especially in southern Nigeria, reporting very poor level of job satisfaction showing that only one in five health workers were satisfied with their work.¹⁴⁻¹⁶ Similarly, the previously high level of psychological health where more than 70-80%^{10,12,34,35} were in good psychological health appeared to be deteriorating such that in recent studies, as much as 50-75% of health workers were potentially at risk of psychological morbidity.¹⁵ The finding was corroborated in this current study.¹⁰⁻¹² This may indicate a pending emergency among health care providers working in the country's tertiary hospitals.

The mechanism of how job satisfaction affects psychological health of workers has been debated because most studies demonstrating a relationship utilized the cross-sectional design. Even though the general consensus has been that job satisfaction acts as the explanatory variable in the relationship, some authors have also argued that the state of the psychological health of workers may influence their perception on how satisfied they are with their job.³⁶ It could also be that the relationship is bi-directional with each variable capable of influencing the other. This study demonstrated a weak negative correlation between overall job satisfaction scores and GHQ scores implying that a higher level of job satisfaction was associated with a lower level of psychological health. This was in agreement with a previous study conducted among nurses in Abeokuta, Nigeria.³¹ Respondents with low levels of job satisfaction also reported psychological morbidity. The correlation between overall job satisfaction and psychological health was also consistently less than 0.3 in most cases as demonstrated in a meta-analysis of the correlation between job satisfaction and psychological health, which affirmed that correlations in excess of 0.3 was rare.³⁷

Public Health Implications

The performance of health indices is a measure of the developmental stage of any society. Thus, the United Nations proposed Sustainable Development Goals (SDGs) and targets towards which countries strive in achieving societal progress and development.³⁸ The performance of health workers is therefore, crucial in achieving SDG 3 (on achieving good health and wellbeing) and other goals.³⁸ It would be difficult to maintain any developmental trajectory in an environment where the welfare and perceived job satisfaction of health workforce continue to deteriorate and also where they have to work with poor mental health. Job dissatisfaction reduces productivity both in terms of quantity and quality for example impacting on patient satisfaction and the level of mortality,^{39, 40} may lead to poor motivation and prolonged absenteeism from work.⁴¹ Of particular importance is that health workers who have low level of job satisfaction are prone to medical errors⁴² and they tend to emigrate in search of greener pastures.⁴³ This is not unique only to Nigeria but globally, there has been a continuous decline in health workers job satisfaction such that economies compete to attract the health workers to fill in the shortage,⁴⁴ putting developing economies at a disadvantage thus further depleting the already overstretched health workforce. A limitation of the was that the study was conducted in a state teaching hospital and thus may not be representative of other state and federal teaching hospitals or the private practitioners in the health sector. The findings from this study should be interpreted in this regard.

CONCLUSION

This study revealed that only about a fifth of health workers were satisfied with their jobs. About three-quarters of the respondents had probable psychological morbidity who might require further assessment. There was a weak significant negative correlation between job satisfaction scores and GHQ scores. There was also a significant association between job satisfaction and psychological wellbeing of respondents. The government, policy makers and hospital management need to intervene urgently to improve job satisfaction among health workers which will in turn improve the psychological health and productivity quality of health workers. Such interventions may be targeted at specific subdomain contributing to the overall job satisfaction such as improving the working conditions and pay.

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Conflicts of interest

The authors declare that they have no conflicts of interest

Contribution to joint publication

SB and TEO conceived the idea, planned and designed the study. TEO collected data. SB, TEO and MMS analysed and interpreted data. SB and MMS wrote the first draft of manuscript. All authors reviewed and approved the final manuscript version.

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