

Original Research Article

Effect of Occupational Factors on the Quality of Life of Workers in Governmental and Non-Governmental Sectors in Southeastern Nigeria

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Abstract

Purpose: To assess the effect of occupational factors on quality of life (QOL) of workers in Governmental and non-Governmental sectors in southeastern Nigeria.

Methods: A total of 2025 workers (both governmental and non-governmental sectors) were selected from across five southeastern states of Nigeria by convenient sampling. The Medical Outcomes Survey Short Form-36 (SF-36) alongside twenty closed questions was administered to the two groups of respondents to assess their quality of life and determine other factors that affected their quality of life.

Results: Having a job that is tasking ($r = -0.209, p < 0.05$) contributed significantly to low Physical Component Summary (PCS) in non-governmental sector but having job that raises enough finances for one's comfort ($r = 0.228, p < 0.05$) impacted positively on their PCS. Being overly stressed by the job ($r = -0.225, p < 0.01$) was the only factor that significantly impacted negatively on Mental Component Summary (MCS) of respondents in Governmental sector while having a job that exposes one to a lot of health risk ($r = -0.269, p < 0.01$, having a job that is tasking ($r = -0.206, p < 0.05$) and having the belief that there are spiritual forces responsible for the challenges one is facing ($r = -0.249, p < 0.05$) accounted for decrease in MCS of respondents in non-Governmental sector.

Conclusion: Occupational factors had more negative impact on the quality of life of respondents in non-Governmental sector than their counterparts in Governmental sector of the economy.

Keywords: Quality of life, Occupation, Governmental sector, Non-governmental sector, Nigerian workers, Medical outcomes survey.

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INTRODUCTION

Measuring health status in a population is important for the evaluation of interventions and the prediction of health and social care needs. The traditional measures of mortality and morbidity, although useful, have nonetheless certain limitations [1]. It goes beyond direct manifestations of illness to study the patient's

personal wellbeing, that is to say, that it includes the various effects which illness, treatments and occupation have on daily life and life satisfaction. Indeed, it is now widely acknowledged, in terms of health, that decisions must take into consideration the subject's point of view and his inner feelings towards the experiences he has lived through, i.e., his quality of life (QoL) [2].

Quality of life is a multi-faceted concept, which encompasses crucial areas such as physical health, psychological well-being, social relationships, economic circumstances, personal beliefs and their relationships to salient features of the environment [3]. It is a broader concept than economic production and living standards. It includes the full range of factors that influences what we value in living, reaching beyond its material side. Since the occupation of an individual is part of his everyday life, it is therefore of no doubt that the nature of the occupation or a change of it will definitely affect the individual's wellbeing and invariably quality of life.

A number of subjective and objective features give shape to quality of life and this includes health, education and personal activities. Health is a basic feature shaping both the length and quality of people's lives but how people spend their time and the nature of their activities matters for quality of life and this of course involves their occupation which is what they do to earn a living.

The ability to convert resources into a good life varies among people; therefore, individuals with a greater capacity for enjoyment or a greater ability for achievement in valuable domains of life maybe better off even if they command fewer economic resources [4]. This shows that the factors which determine one's quality of living goes beyond measures of income, wealth, and consumption and incorporate the non-monetary aspects of living which has an important role to play and these factors can be occupational such as work stress and job satisfaction. These occupational factors generally affect the physical, social and mental states of an individual; these factors being domains of quality of life; will invariably reflect the individual's wellbeing as a result of his occupation when assessed.

Related work factors such as job satisfaction, job involvement, job stress and other essential components of quality of working life such as job factors of wages, hours and working condition, and the intrinsic job notion of the nature of the work itself affects the quality of life [5,6]. The quality of an individual's work life is influenced by these factors and more obviously affect the general wellbeing of an individual though there is an argument that quality of life might vary between groups of workers [7]. Based on the above issues, the aim of this study was to assess the effect of occupational factors on quality of life (QOL) of workers in Governmental and Non-Governmental sectors of economy.

METHODS

Study design and population

This cross sectional study included workers in both Governmental and non-Governmental sectors in the South-Eastern states of Nigeria. The workers in Governmental sector were mainly: staff in the states' ministries, University staff, medical and health personnel, and engineers employed in public services. The workers in non-Governmental sectors included mainly traders, artisans, commercial transporters and farmers. All the study participants provided informed consent as approved by the state ministries of health.

Sample size determination

We used StatsDirect statistical software (version 2.7.9) to calculate Sample size for Pearson correlation. The estimated minimum sample size gotten was 784. Based on these data, to ensure sufficient statistical power and to account for 'drop-outs, sort-outs and incomplete information' during and after the study, a target sample size of 1050 and 1251 respondents in Government and Non-Governmental sector respectively were surveyed.

Sampling techniques

In Governmental sector, multi-stage sampling was employed; five states of south eastern zone were involved. Five states' ministries (education, health, works and housing, agriculture and finance) and 2 federal/states' tertiary institutions (hospitals and universities) were conveniently selected. Two hundred staff from each state were conveniently selected; 20 from each ministries (100) and 50 from each tertiary institutions (100) except Enugu where 250 were selected (extra 50 were allocated to tertiary institutions) because of its status in south-east. Enugu is hosting the two largest tertiary institutions (University of Nigeria, Nsukka and University of Nigeria Teaching Hospital) in south eastern zone; giving a total of 1050 questionnaires.

The workers in non-Governmental sectors were also selected conveniently and 250 questionnaires each were administered to traders, artisans, commercial transporters, farmers and 251 questionnaires were administered to others workers who were not in class mentioned here, giving a total of 1251 questionnaires. Overall, a total of 2301 questionnaires were administered to the workers

that fulfilled the inclusion criteria without any of the exclusion criteria in each of the category.

Data collection

The self-perceived quality of life (QoL) of both categories of workers was assessed using the SF-36. The possible factors which impact on quality of life of the workers were assessed using the twenty closed questions.

Interviews of 2301 workers who had been in job for at least 5 years were conducted by using a structured questionnaire. We requested information on age, gender, education, income, category of employment, duration of employment, family size, number of dependents, type of residential accommodation, co-morbidity, lifestyle factors, occupational factors and QoL.

Inclusion/exclusion Criteria

Analysis was restricted to workers without major diseases and their dependents without major diseases because factors in severely ill patients [8, 9], or their dependents [10] influence QoL. We excluded incomplete questionnaires (N = 76), workers who were handicapped or severely ill themselves (N = 54), worker who were admitted to hospital in previous six months (N = 44), workers whose dependents were handicapped or severely ill (N = 61), worker with co-morbidity conditions including diabetes mellitus, heart diseases, hypertension, and depression (N = 41). Finally, data of 2,025 workers (900 from Governmental sector and 1125 from non-Governmental sector) were included in the analysis which represented 88.0 % of the total workers interviewed.

Data analysis

The derivations of quality of life domain scores as well as summary of Physical Component (PCS) and Mental Component (MCS) were done according to algorithm presented in procedure manual of SF-36 scoring system.

Two-sample comparisons were made using Student's *t*-tests to compare the QoL domains of respondents in Governmental and Non-Governmental sectors. Bivariate correlation analyses were conducted to examine the specific association of quality of life factors to job categories (Governmental and Non-Governmental sectors), physical and mental components summaries of SF-36. This was based on parametric data analysis since the dependent variables (PCS and MCS) are continuous data.

Data analysis was conducted with SPSS 14.0® (Chicago, Illinois, USA). A two-tailed significance level of 0.05 was used.

RESULTS

The demographics data of Governmental and non-Governmental sectors were equivalent except in education ($p < 0.0001$), daily income ($p < 0.0001$) and family size ($p < 0.0001$). Most of the respondents in Governmental sector had at least tertiary education (91.9 %) when compared with less than a quarter (22.5 %) of their counterparts in Non-Governmental sector. The respondents in Governmental sector significantly had lower family size with higher daily income than counterpart in non-Governmental sector (Table 1).

All the domains (single attributes) of SF-36 except general health perception were significantly higher in respondents in Governmental sector than Non-Governmental sector. Also the mental and physical health status of respondents in Governmental sector was significantly better than that of the respondents in Non-Governmental sector (see Table 2).

Most of occupational factors assessed impacted negatively on PCS of respondents in Governmental sector but none was statistically significant. Four of these factors assessed were significantly associated with lowering effects seen in the MCS of these respondents. These four factors included having more dependents ($r = -0.197$, $p < 0.05$), taking snuff ($r = -0.287$, $p < 0.01$), having most of the extended family members die young ($r = -0.259$, $p = 0.01$) and being overly stressed by the job ($r = -0.248$, $p < 0.01$) (Table 3).

In Non-Governmental sector, six of the occupational factors affected the PCS of the respondents significantly. Five of these factors impacted negatively on the PCS but their PCS was improved when job raises enough finances for one's comfort ($r = 0.222$, $p < 0.05$). The five negative factors included having big family size ($r = -0.250$, $p < 0.05$), being specifically disturbed about one's family's health ($r = -0.367$, $p < 0.01$), being aware of any disease that runs in the family line ($r = -0.224$, $p < 0.05$), having a job that affects one's relationship with others ($r = -0.196$, $p < 0.05$), having a job that is tasking ($r = -0.234$, $p < 0.05$).

The MCS of the Non-Governmental sector was mostly affected negatively by being female ($r = -0.267$, $p < 0.01$), being married or widowed ($r = -$

Table 1: Socio-demographic data for the respondents

Demographic Data	Governmental sector (%) N=900	Non-Governmental (%) N=1125	P-value
Age			0.6956
20-30	45.5	50.0	
31-44	34.1	30.4	
45-60	20.4	18.6	
>60	0	1.0	
Sex			0.3218
Male	56.1	48.0	
Female	43.9	52.0	
Duration of occupations (years)			0.5027
1-5	16.0	15.7	
6-10	57.7	60.8	
11-15	9.8	13.7	
>15	16.5	9.8	
Marital status			0.2325
Single	43.9	47.1	
Married	53.7	45.1	
Divorced	0	2.9	
Separated	0	1	
Widowed	2.4	3.9	
Educational status			<0.0001**
Primary	1.6	27.5	
Secondary	6.5	50.0	
Tertiary	48.0	19.6	
Post graduate	43.9	2.9	
Type of residential accommodation			0.5969
Self-owned	12.2	14.8	
Rent	76.4	72.5	
Inherited	5.7	8.8	
Don't have	5.7	3.9	
Daily income (₦)			<0.0001**
<1,000	22.0	69.6	
1,000-5,000	52.0	20.6	
>5,000	26.0	9.8	
Family size			0.0001**
1-4	37.0	5.0	
5-7	44.0	61.0	
>7	19.0	34.0	
Size of dependents			0.6144
0	17.9	26.5	
1-4	45.5	42.2	
5-7	23.6	19.6	
>7	13.0	11.7	

**P < 0.0001 (Chi Square test)

Table 2: Single attributes domains, PCS and MCS components of quality of life of respondents

Domains of Quality of Life (Single Attributes and Components)	Governmental sector	Non-Governmental sector	P- value
General health perception	50.07± 6.70	49.70 ± 7.17	0.2350
Physical functioning	50.43 ± 6.25	49.17 ± 6.95	<0.0001*
Role functioning_ physical	49.95± 6.30	47.72 ± 8.26	<0.0001*
Bodily pain	51.37± 8.09	46.50 ± 9.93	<0.0001*
Vitality (energy)	55.02 ± 6.77	53.15 ± 10.70	<0.0001*
Social functioning	50.31± 6.23	48.98 ± 8.04	<0.0001*
Mental health	47.22 ± 7.80	46.15 ± 10.01	0.0086*
Role functioning_ emotional	47.96 ± 6.10	45.99 ± 7.67	<0.0001*
Physical component of quality of life	52.57± 6.50	50.59± 8.17	<0.0001*
Mental component of quality of life	49.43 ± 7.90	47.53± 10.10	<0.0001*

Values represent mean ± standard deviation of mean. * P-value < 0.05

Table 3: Correlation of quality of life factors with physical and mental components

Factors	Governmental sector		Non-Governmental sector	
	PCS	MCS	PCS	MCS
Demographic data				
Age	-0.040	-0.030	0.095	-0.040
Sex (female)	-0.087	0.016	-0.027	-0.267(**)
Years of Occupation	-0.027	-0.050	0.095	0.004
Marital Status (married)	-0.043	0.039	0.093	-0.313(**)
Educational Status	-0.086	-0.019	0.042	-0.074
Type of Accommodation	-0.123	-0.078	-0.036	0.092
Daily Income Status	0.029	-0.021	0.037	-0.085
Family Size	-0.028	0.137	-0.250(*)	0.055
Number of dependents	-0.033	-0.197(*)	0.111	-0.122
Lifestyle factors (Yes)				
Do you smoke cigarette?	0.001	-0.025	-0.138	-0.001
Do you take snuff?	0.021	-0.287(**)	0.061	0.065
Do you take alcoholic drinks regularly?	0.066	-0.113	-0.020	0.004
Do have regular exercise?	-0.023	0.103	0.098	0.107
Family factors (Yes)				
Are you specifically disturbed about your family's health?	-0.047	-0.161	-0.367(**)	-0.117
Are you aware of any disease that runs in your family line?	-0.091	-0.100	-0.224(*)	-0.092
Do most of your extended family members die young?	-0.092	-0.259(**)	0.036	-0.036
Do you fear that you may develop a disease because some of your family members have suffered from such disease in the past?	0.010	-0.020	0.062	-0.026
Job/occupation factors (Yes)				
Do you do more than one job?	-0.042	-0.065	-0.104	0.023
Does your job affect your relationship with others?	-0.031	-0.064	-0.196(*)	-0.118
Does your job expose you to a lot of health risk?	-0.066	-0.057	-0.179	-0.275(**)
Are you overly stressed by your job?	-0.071	-0.248(**)	-0.099	-0.199(*)
Do you consider your job satisfying?	-0.007	-0.089	0.144	0.140
Does your job raise enough finances for your comfort?	0.049	-0.021	0.222(*)	0.119
Would you say your job is tasking?	-0.089	-0.106	-0.234(*)	-0.211(*)
Does your job involvement make you lose interest in other activities?	-0.158	-0.117	-0.130	0.058
If given an opportunity would you change job?	0.161	0.109	-0.032	-0.042
Do you believe that there are spiritual forces responsible for the challenges you are facing?	-0.016	-0.018	-0.173	-0.256(**)
Do you believe that your present job is the will of God?	-0.054	0.047	-0.087	0.000
Do you believe you can make it in life through this job?	0.004	0.043	0.116	0.053

*Correlation is significant at the 0.05 level (2-tailed). **Correlation is significant at the 0.01 level (2-tailed)

0.313, $p < 0.01$), having job that exposes one to a lot of health risk ($r = -0.275$, $p < 0.01$), being overly stressed by the job ($r = -0.199$, $p < 0.05$), having a job that is tasking ($r = -0.211$, $p < 0.05$) and having believe that there are spiritual forces responsible for the challenges one is facing ($r = -0.256$, $p < 0.05$) (Table 3).

After adjustment (i.e., controlling for demographics data and lifestyle factors), none of the occupational factors had significant impact on PCS, though most of them contributed to the lowering PCS in Governmental sector. Having a job that is tasking ($r = -0.209$, $p < 0.05$) contributed significantly to poor PCS in Non-Governmental sector but having job that raises

enough finances for one's comfort ($r = 0.228$, $p < 0.05$) impacted positively on their PCS.

Being overly stressed by the job ($r = -0.225$, $p < 0.01$) was the only factor that significantly impacted negatively on MCS of respondents in Governmental sector while having job that exposes one to a lot of health risk ($r = -0.269$, $p < 0.01$, having a job that is tasking ($r = -0.206$, $p < 0.05$) and having believe that there are spiritual forces responsible for the challenges one is facing ($r = -0.249$, $p < 0.05$) accounted for decrease in MCS of respondents in Non-Governmental sector (Table 4).

Table 4: [†]Correlation of quality of life factors with physical and mental components the sectors (Adjusted)

Factors	PCS	MCS	PCS	MCS
	Governmental sector		Non-Governmental sector	
Do you do more than one job?	-0.033	-0.032	-0.100	0.018
Does your job affect your relationship with others?	-0.039	-0.053	-0.174	-0.102
Does your job expose you to a lot of health risk?	-0.051	-0.033	-0.142	-0.269(**)
Are you overly stressed by your job?	-0.031	-0.225(**)	-0.071	-0.173
Do you consider your job satisfying?	-0.003	-0.038	0.126	0.133
Does your job raise enough finances for your comfort?	0.036	-0.018	0.228(*)	0.104
Would you say your job is tasking?	-0.091	-0.008	-0.209(*)	-0.206(*)
Does your job involvement make you lose interest in other activities?	-0.125	-0.104	-0.120	0.023
If given an opportunity would you change job?	0.147	0.007	-0.009	-0.029
Do you believe that there are spiritual forces responsible for the challenges you are facing?	-0.009	-0.004	-0.141	-0.249(**)
Do you believe that your present job is the will of God?	-0.042	0.027	-0.059	0.000
Do you believe you can make it in life through this job?	0.001	0.017	0.102	0.029

[†]Demographics data and lifestyle factors were controlled for, *Correlation is significant at the 0.05 level (2-tailed), ** Correlation is significant at the 0.01 level (2-tailed)

DISCUSSION

The respondents from Governmental sector had significantly higher quality of life than their counterpart in Non-Governmental sector. This poor or low quality of life seen in respondents in Non-Governmental sector is significantly associated with their assertions that their 'job expose them to a lot of health risk', and 'their job involvement make them lose interest in other activities'. Many respondents in Non-Governmental sector believed that there were spiritual forces responsible for the challenges they were facing. Blaming their fates to forces they cannot control might be the contributing factors that led to poor quality of life in respondents in Non-Governmental sector of economy.

Generally, there are quite a number of factors known to influence quality of life and this includes: the nature of work, family histories, education, stress, health and safety, psychological and lifestyle factors [5-6]. It was observed in this study that the lifestyle factors like regular physical exercise significantly improved the physical component of quality of life, this is agreeable with previous research which showed that lifestyle factors have a profound impact on health during mid- and late-adulthood [11]. Other notably significant factors which influenced the physical and mental components quality of life of the workers included: demographic factors, family or genetic factor, job and financial factors and spiritual and psychological factors.

This study revealed that the type or the nature of occupation one does has some impact on one's quality of life, this is not far from the truth because according to a publication by the American occupational therapy [12], there is the belief that there is a relationship between occupation and well being as well as health. The relationship between persons, occupation and environment is not linear but dynamic, this is constantly interacting relationship that influences the way a person performs daily task and activities. This performance in turn is believed to influence health and quality of life. A number of mediating factors have been identified to ensure this interaction between occupation and quality of life and this includes stress as well as other factors affecting quality of working life. In agreement with this, Elizur and shyee [13] have concluded that quality of work performance influences quality of life as well as quality of working life.

From previous studies on quality of working life, basic extrinsic job factors of wages, hours and working condition and the intrinsic job notion of the nature of job itself have been identified as essential components of quality of working life [6]. It has also been stated that wealth is a strong factor affecting quality of life [14] and could possibly contribute to the increased quality of life observed in respondents in Governmental sector. The increased income and lower family size tend to reduce the stress on this category of respondents.

Considering educational status, when participants were learning something, they experienced flow and increased job satisfaction

[15], this in turn increases their quality of living [16]. This is in line with the improved quality of life observed in respondents in Governmental sector that had higher level of educational status. This might have contributed to high level of job satisfaction and contentment among respondents from Governmental sector.

Limitations of the study

The major limitations of this study were missing data, selection bias, and self-reported data. Missing data presented the most daunting challenge in demographic and quality of life scores. Selection bias was a problem as participation was voluntary. It remains possible that respondents who chose to participate in the study may have differed in some important ways from those who did not participate, which could affect the external validity or generalizability. Data were self-reported, there is likelihood that perceived data reported here by the respondents may have differed from the actual situation.

CONCLUSION

Occupational factors had more negative impact on the quality of life of respondents in the non-Governmental sector than their counterparts in Governmental sector of economy. It is obvious that the activities and performance in the workplace influences quality of life. It is recommended that employers of labour conduct regular assessment of quality of working life of their employees to obtain information about their welfare, job satisfaction, work stress and general well-being.

CONFLICT OF INTEREST

No external funding was obtained for the study. The authors declare that there is no conflict of interest.

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