



Factors affecting job satisfaction among junior doctors working at teaching hospitals in River Nile State, Sudan

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Background: Human power is the backbone for the provision of quality health care for the population. High level of doctor satisfaction impacts positively on the health services quality and patients satisfaction. Little is known about factors affecting job satisfaction among junior doctors working in hospitals at River Nile State (RNS) in Sudan. Therefore, the aim of this study is to assess the job satisfaction among doctors working at hospitals in RNS.

Methods: A descriptive cross-sectional hospital based study was conducted among 94 medical and house officer doctors working at Mak Nimir and Shendi Teaching hospitals in the period from November 2012 to January 2013. A self-administered questionnaire containing 21 questions were used to collect the information about socio-demographic characteristics, factors affecting job satisfaction (working condition, workload, payment and promotion).

Results: The total number of doctors included on this study was 94. Male were 30 (32%). The mean age was 30.3 years. The majority of doctors were single 64 (68%). Age and marital status were found to be statistically significant in relation to job satisfaction $P < 0.05$. Most of the doctors were found with clinical experience of 2 to 3 years (46.8%). The result displayed that (50.9%) of doctors were dissatisfied with their job and the major reasons were work condition (27%), lack of training (23%), inadequate pay (21.7%), workload (19.8%), social relationship (4.7%) and autonomy (3.6%).

Conclusions: Job satisfaction among doctors in this study is low. Responsible bodies should devise mechanisms to improve job satisfaction.

Keywords: Job; satisfaction; Shendi; doctor; River Nile State (RNS); Sudan

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Introduction

Job satisfaction represents one of the most complex areas facing today's managers when it comes to managing their employees. Large impact on the job satisfaction on the motivation of workers will improve the performance and increase the productivity (1). Hoppock defined job satisfaction as any combination of psychological, physiological and environmental circumstances that cause a person truthfully to say I am satisfied with my job (1,2).

In developed and developing countries, job satisfaction has been found to be a significant predictor of the quality and efficiency of the health systems. Unfortunately, in our region, job satisfaction has not still received the proper attention (3). There are a variety of factors that can influence a person's level of job satisfaction. Several studies have compared factors affecting job satisfaction among healthcare workers in developed and developing countries (4-6). Typical factors have included pay incentives, working conditions, doctor patient relationship, stress as well as interrelations and opportunities for health workers (4,7). Human resources are a vital component in delivering health services (8). In Sudan, the health system performance and health indicators are regarded to be poor with figures lagging behind the benchmarks of the Millennium Development Goals (MDGs) (9). The public health system in Sudan is decentralized since 1990, it is organized into 3 levels (federal, state and locality). The majority of the health workforce employed by the public sector and the geographical distribution shows bias towards urban setting especially Khartoum state where 65% of specialist doctors and 58% of technicians are found (10). However compared to the global average of health workers which is 4.0 health workers per 1,000 population Sudan is considered low, but close to the WHO indicator which is a minimum of 2.5 health workers per 1,000 people is required to attain adequate coverage of essential health interventions and core MDG-related health services (11-13).

Methods

A cross-sectional survey was conducted in Al Mak Nimir and Shendi Teaching Hospitals both are located in Shendi locality, River Nile State (RNS), Sudan. This hospital consists of medicine, pediatric, surgery, obstetric and gynecological, ophthalmology, orthopedic and ENT departments. Al Mak Nimir is University Hospital has three special centers: Renal, Oncology, and Cardiac Centers.

Shendi Teaching Hospital is managed by State Ministry of Health. Both hospitals provide specialized clinical services for an approximate population of more than 421,335.

At the time of the study, there were 96 doctors (64 medical officers, and 32 house officers) 94 doctors who were on the job during the study period were included, 64 out of them were medical officers and the rest were house officers. A modified Self-administered questionnaire was used for data collection. The content of the questionnaire included socio-demographic characteristics and lists of factors for job satisfaction and dissatisfaction.

Statistical analysis was used to describe the characteristics of respondents and the factors that influence job satisfaction among doctors. To measure job satisfaction respondents were asked to respond to the questions by choosing one of the 5 choices; 1—very satisfied, 2—satisfied, 3—neutral, 4—dissatisfied, and 5—very dissatisfied. The higher scores indicated higher levels of job satisfaction in doctors.

Data were entered into a computer and analyzed using SPSS version 20. Chi-square test was made to evaluate the association of different variables with job satisfaction, and P value <0.05, at 95% CI was taken as cut-off point for statistical significance.

Ethical approval

Verbal informed consent was obtained from each participant prior to enrollment. A complete description of the aims of the study, potential benefits, and risks, assurance of confidentiality of any information was given. Any other additional information requested by participants was provided during data collection. All information obtained was kept confidential. An ethical clearance of the research was obtained from the Ethical Committee of the Faculty of Medicine—Shendi University. Permission had been taken from the head managers of the two hospitals.

Results

Out of the total 96 doctors in the two hospitals, 96 were on active duty during the data collection period, of which 94 of them volunteered to participate. Sixty-four (68%) were females and the rest were males. Most of the participants were in age group 25–30 years 70 (74.4%) (Table 1). The majority of doctors were single 64 (68.0%) (Table 1).

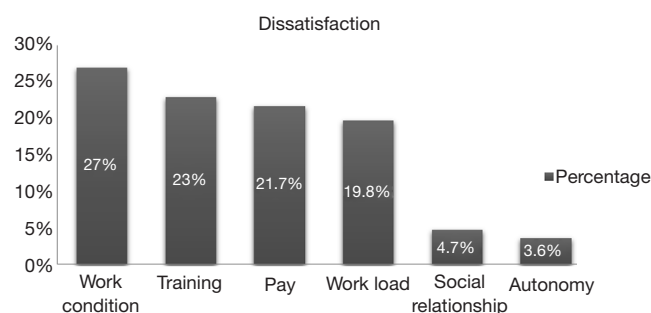
The total clinical experience among doctors in the two hospitals ranges from 2 months up to 6 years, the bulk of doctors were found with clinical experience of 2 to

Table 1 The socioeconomic and demographic characteristics of Doctors in Shandi locality, RNS, 2013 (n=94)

| Parameter | Frequency (%) |
|------------------------------------|----------------|
| Age (years), mean \pm SD | 30.3 \pm 4.5 |
| <25 | 2 (2.1) |
| 25–30 | 70 (74.4) |
| 31–35 | 22 (23.4) |
| 36–40 | 10 (10.0) |
| Gender | |
| Male | 30 (32.0) |
| Female | 64 (68.0) |
| Marital status | |
| Single | 64 (68.0) |
| Married | 29 (30.8) |
| Divorced | 1 (1.06) |
| Total years of experiences (years) | |
| <2 | 37 (39.3) |
| 2–3 | 44 (46.8) |
| >3 | 13 (13.8) |
| Working hours (hours) | |
| <8 | 2 (2.1) |
| 8–12 | 69 (73.4) |
| >12 | 12 (12.7) |
| Differ from day to day | 11 (11.7) |
| Areas of work | |
| Medicine | 26 (27.6) |
| Surgery | 23 (24.4) |
| Pediatric | 19 (20.2) |
| Obstetrics & gynecology | 16 (17.0) |
| Renal centers | 5 (5.3) |
| Cardiac center | 3 (3.1) |
| Oncology | 2 (2.1) |

3 years (46.8%) (*Table 1*). Most of respondent doctors work in medicine, surgery, pediatric, obstetrics and gynecology departments as 27.6%, 24.4%, 20.2% & 17.0% respectively (*Table 1*).

A load of works was varied, but most of doctors 69 (73.4%) were in 8–12 working hours (*Table 1*). *Table 2*

**Figure 1** The factors that affected Doctors job dissatisfaction in Shandi locality, RNS, 2013 (n=94).

displayed the degree of job satisfaction. Areas identified of job satisfactions are the social relationship with colleagues 76 (80.8%) and patients 55 (58.5%), degree of satisfaction was high for both autonomy 51 (54.2%) and working with nurses (57.4%). Unfortunately, loyalty among junior doctors was low (30.8%). Juniors' doctors were asked about how they were treated by management department. Respondents were satisfied with the distribution of tasks and roles 70 (74.4%), but very dissatisfied about the achievement 43 (45.7%). Most of the respondents were dissatisfied about clinical education process in term of training provisions 74 (78.7%) and clinical update in work 67 (71.2%).

Generally, most of the respondent were very dissatisfied about the working hours 59 (62.7%) and workload. Most of them felt exhausted and overload 62 (65.9%). In work condition respondent showed high dissatisfaction for the workplace facilities 69 (73.4%) and comfortability 64 (68.1%), but low dissatisfaction for workplace security 32 (34.0%). Finally, majority of the respondents displayed very high level of dissatisfaction for payment of their basic salary 68 (72.3%) and incentives 65 (69.1%). The factors affecting job satisfaction according to the respondent dissatisfaction were work condition, training, pay rate, workload and social relationships (*Figure 1*).

Discussion

Job satisfaction is the degree of favorableness with which the employees view their work. It is an issue that affects the lives of all workers including health professionals and is also a factor that determines whether an employee will remain in a position or seek work elsewhere. Furthermore, job satisfaction can influence the quality of work produced (8). On the other hand, job dissatisfaction among doctors resulting in turnover and migration would

Table 2 The degree of satisfaction of Doctors in Shandi locality, RNS, 2013 (n=94)

| Parameter | Frequency (degree of satisfaction), n (%) | | |
|-----------------------------------|---|-----------|--------------|
| | Satisfied | Neutral | Dissatisfied |
| Working hours | 14 (14.8) | 21 (22.3) | 59 (62.7) |
| Feeling of exhaustion & over load | 19 (20.2) | 13 (13.9) | 62 (65.9) |
| Relationship | | | |
| Medical colleague | 76 (80.8) | 5 (5.3) | 13 (13.8) |
| Nurse | 54 (57.4) | 13 (13.8) | 27 (28.7) |
| Patients | 55 (58.5) | 23 (24.4) | 16 (17.0) |
| Team work | 62 (65.9) | 20 (21.2) | 12 (12.7) |
| Autonomy | 51 (54.2) | 32 (34.0) | 11 (11.7) |
| Loyalty (I love my work) | 29 (30.8) | 31 (32.9) | 34 (36.1) |
| Hospital management | | | |
| Distribution of task | 70 (74.4) | 15 (15.9) | 9 (9.5) |
| Achievement | 22 (23.4) | 28 (29.7) | 43 (45.7) |
| Continues education | | | |
| Provision of training | 10 (10.6) | 10 (10.6) | 74 (78.7) |
| Updating in work | 15 (15.9) | 12 (12.7) | 67 (71.2) |
| Work condition | | | |
| Work place facilities | 16 (17.0) | 9 (9.5) | 69 (73.4) |
| Work place comfort ability | 23 (24.4) | 7 (7.4) | 64 (68.1) |
| Work place security | 43 (45.7) | 19 (20.2) | 32 (34.0) |
| Pay | | | |
| Salary | 8 (8.5) | 18 (19.1) | 68 (72.3) |
| Incentive | 8 (8.5) | 21 (22.3) | 65 (69.1) |

exacerbate the current shortage and results in serious understaffing of health care facilities. This has the potential to have a negative impact on the delivery of patient care (10).

In this study, female doctors found to be more than male doctors, this likely due to significant increase in the numbers of women joining Medical Schools; this lead to slight dominance of females representing 51 percent of total medical force (9). The female doctors showed lower job satisfaction and this could be due to family commitment, duties in childbearing and rearing.

The majority of doctors were younger in age this is because most of the participants were medical and house officer this may indicate the needs to exercise caution when comparing the outcome of this study with other studies.

For example, in Kingdom of Saudia Arabia it was found that most of the health care professional staffs were satisfied with many aspects of their jobs; however this included individuals above the age of 50 years old (14). Importantly, age and marital status were found to be statistically significant in relation to job satisfaction $P < 0.05$ ($P = 0.000$ and 0.000 respectively). In Nigeria, the mean score on job satisfaction was 26.15 out of the total possible score of 49 and age and marital status were found to be statistically significant in relation to job satisfaction ($P = 0.000$ and 0.034 respectively) (15).

The workload was found to be one cause of doctor job dissatisfaction, and this may influence doctor stress level (16-18). In addition time pressure due to workload is a

crucial issue that doctor may face during patients visits and likely to contribute to low job satisfaction. Important predictors of job satisfaction among doctors included age, areas of work and expertise (8). Our study showed that doctors working in internal medicine and pediatrics departments have low satisfaction than other doctors working in other specialties. While in Switzerland, the Internal medicine specialists and pediatricians tended to be more satisfied than other specialties (19). This likely due to the fact that primary care physicians in developed countries are treating most cases in communities and therefore preventing unnecessary hospitals admission to medical and pediatrics wards.

The majority of doctors have a moderate level of satisfaction for doctor relationship with their seniors' colleagues, nurses and patients. Two third of the doctors were satisfied by the task distribution in the hospitals but few of them were dissatisfied about their achievement. Autonomy and self-esteem were considered positive factors for doctor job satisfaction in this study similar to study done in Al-Madinah Al-Munawwara (20).

In this study, the dissatisfaction rate among doctors was (50.9%). This finding was almost similar to job satisfaction reported in studies in Ethiopia, KSA USA, UK, Egypt and Pakistan (14,18,21-24). Despite the fact the health care system in USA and UK are very advanced in comparison with Sudan, the workloads and medico legal problems may generate more dissatisfaction for doctors in these developed countries (21-24). Importantly, the dissatisfaction encourages doctor's frequent turnover and migration which may have adverse affect on the health services provided for patients in Sudan. The lack of job satisfaction is also related to job-related problems as excessive clinical overload, overnight emergency duties, work stress, medical errors, and medico-legal conditions. On the other hand, these job-related problems influence on extra job duties and concern including family life, social interaction and opportunities for professional development (14-20). Therefore, junior doctors are required to be aware of these factors that may significantly lead to job dissatisfaction.

In this study, there were many limitations. First, the cross-sectional design with job satisfaction, it was difficult to establish the causal conclusion. The longitudinal survey might be carried out to confirm the causal conclusion in the future study. Second, the data were self-reported. There is no way to ensure the honesty of the participants which can potentially exert an influence on the results then, the self-administrated bias might have an impact on the results.

Despite these limitations, this study revealed that the main factors of junior doctor's dissatisfaction in Sudan were work condition, lack of training, pay rate, workload and social relationship. This finding in agreement with previous studies examining job satisfaction of health workers in both developed and developing (8,15,16).

Conclusions

In conclusion, the job satisfaction among doctors in the two hospitals varies from moderately satisfied to very dissatisfied, which highlights the need for policies that improve work conditions, pay rate, workloads, and provision of medical education. The outcome of this study can support the ministry of health for human resources policy development.

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Footnote

Conflicts of Interest: All authors have completed the ICMJE uniform disclosure form (available at <http://dx.doi.org/10.21037/jphe.2017.09.04>). MHA serves as an unpaid editorial board member of *Journal of Public Health and Emergency* from Aug 2017 to Jul 2021. The other authors have no conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. The study was conducted in accordance with the Declaration of Helsinki (as revised in 2013). An ethical clearance of the research was obtained from the Ethical Committee of the Faculty of Medicine—Shendi University. Written informed consent was obtained from the participants for publication of this manuscript and any accompanying images.

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