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Job satisfaction among nurses in Khartoum state government hospitals: 2019

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Abstract

Background: Job satisfaction is a positive emotional state resulting from appraisal of one's job, Level of job satisfaction is an extent to which person likes or dislikes his job. Nursing staff are among the most important resources in health care. Job satisfaction plays a role in the delivery of quality of health care system, and it is a key factor linked to the better outcome for patients. Having shortage of nurses' in part due to pitfalls in job satisfaction, the aim of this study is to envision ways for sustaining the work force. **Methods and Subjects:** A hospital based descriptive study conducted among registered nurses working in governmental hospitals. Self-administered modified tool based on related literature and similar tools design in Arabic language. The tool consists of three parts as follow- Part 1: Participants' profile, Part 2: Job satisfaction survey, Part 3: Two open end question.

Results: Eight nine percent; of participants are females, age of the majority (73. 6%) between 20-40 years old, more than half (59.1%) are married and (45.5%) have no children. According to education profile about half of them (54.6%) have bachelor degree, and (33.6%) have diploma of nursing. Those having executive responsibility are (30.1%). Those practicing general nursing constitute (79.1%). Regarding reason for staying in the job, (35.5%) showed that it's the only available job. and (31.8) see themselves in the same job for the coming years, while (40%) see themselves as a nurse working in different place. (71%) of these respondents planning to stay as a nurses.

Job satisfaction score among nurses in the study indicated that a moderate (68.6%) total job satisfaction among participants. Regarding salary, participants were moderately satisfied (63.6%). participant were slightly satisfied with; communication as a nurse (43.7%). recognitions from others profession (45.2%), rewarding of the job (45.8%), promotion opportunities (56.3%), load of work (56.7%), and nature of the job (57.3%).

Conclusion and Recommendation: The overall job satisfaction score among nurses in Khartoum governmental hospitals were moderately satisfied. They were slight satisfied with promotion opportunities, care services, rewarding of job, and communication as a nurse. As nursing staff are among most important resources in health care. Nurses perceive that job satisfaction as being essential for the ability to give high quality and safe service. Researchers recommended ministry of health and administration of governmental hospitals should make strategies aimed to improve nurse's job satisfaction by financial rewards; improve work conditions and environment as job satisfaction is vital in promoting retention of nurses.

Keywords: job, satisfaction, nurses, Khartoum

Introduction

Job satisfaction (JS) has been defined by many authors; Smith *et al.*, (1975) ^[38] defined JS as the feeling of an employee about the job general. Locke (1976) ^[30] described JS as "pleasurable or positive emotional state resulting from appraisal of one's job or job experiences". Armstrong (2006) ^[4] refers JS to the attributed and feelings people have about their work. George and a Jones (2008) ^[17] described JS as the collection of feelings and believe that people have about their current job. Chen - Chung *et al.* (2003) ^[11] stated that JS can be defined as the differences worker receive and the amount they believe they should receive. Spector (1985) ^[39] defined JS as "Cluster of evaluative feelings about the job". And furthers categorized the cluster into nine facet, JS which measured by job satisfaction Survey (JSS) that include; pay, promotion, supervision, co-workers, nature of work, communication, and work conditions. Aziri (2011) ^[7] stated that when satisfaction is high absenteeism tend to be low,

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and vice versa. Job satisfaction plays role in the delivery of quality of health care system, and it is a key factor linked to the better outcome for patients. (Russel & Gelder 2008) ^[36].

Nursing staff are among the most important resources in the health care. The current nursing shortage and high turnover is of great concerned in many countries. (LU *et al.* 2007, Buchan 2002) ^[10].

Nurses perceive that JS as being essential for ability to give high quality and safe care (Kramer & Claudia 2004) ^[26]. Job satisfaction is a fact that influencing turnover and quality of nursing care globally (Bjork *et al.* 2007).

Nurses constitute the major of health work force in Sudan, and have an impact upon efficiency and effectiveness of health care system. Sudanese nurses are the back bone of health system. They play crucial role in promoting health care which include preventives and curatives services. They focus on the care of individuals, families, and communities (Anonymous 2010).

Nursing is the most diverse of all health care profession, and nursing JS is vital promoting retention of nurses. Pilkington & wood, (1986) ^[34] described nurses JS as a degree of positive affective orientation to words their job. It is defined as the extent a nurses felt needs are fulfilled by the job he/she perform (Geiger & Davit 1988) ^[16].

Many studies have been done on nurses JS and related factors in different countries which include; Belgium, china, South Africa, Ethiopia, Australia, Korea, Greece, Lebanon, Pakistan, Italy, and United States, (Willen *et al.* 2007; Liu *et al.* 2017; Terea & Ngirande 2014; Agezegan *et al.* 2014; Bartram *et al.* 2004; Lee *et al.*, 2003; Loannou and Sourlzi, 2015; Hoonakker *et al.*, 2013; Hamid *et al.* 2013; Cortese, 2007; and MC Haught *et al.* 2011) ^[5, 8, 12, 19, 20, 27-29] respectively.

The purpose of this study is to investigate the level of JS of nurses in governmental hospitals in Khartoum state.

Subjects and Methods

Study design and setup

A hospital based descriptive study was conducted among registered nurses working in governmental hospital - Khartoum state (Khartoum teaching hospital, Omdurman teaching hospital and Khartoum North teaching hospital).

Study population

A study was carried out among all registered nurses who are current employed in the above mentioned hospitals.

Sampling

All registered nurses in these hospitals were included.

Data collection technique and tools

To collect data self-administrated modified tool based on related literature and similar tools design in Arabic language was use to assess profile of participants, and data about Job satisfaction. The tool consists of three parts as follow:

Part 1: Participants profile

Which include; gender, age, marital status, number of children, highest level of education, specialty, executive responsibility, currently employment, area of working, number of nurses who work on routine shift.

Part 2: Job satisfaction survey (JSS)

According to Spector (1985) ^[39]. It consist of 10 domains,

each domain contained four close ended items. A five point Likert like rating scale was used, rating from strongly disagree to strongly agree (1-5). These domains are; Salary, promotion opportunity, knowledge and skills, relationship with nurses, recognition from other health profession, reward of the job, work development, care services, nature of the job, reason for being in current job, and as profession where do they can find themselves in the coming five years. Communication as nurses, and work load.

Part 3: Two opened question

Was asked to participants from their point of view about the best and the worse things about their Job.

The highest possible score for the total job satisfaction is (5 x 4 x 110). This score was converted to percentage score. For each score subscale, the mean score is added and sum is divided by number of items.

Fore ease interpreting data, these scores were translated into percentage. These score is categorized to five categories to represent the level of satisfaction as:

- Very low satisfaction (0 - 20)%
- Moderate low satisfaction (21 - 40)%
- Slight satisfaction (41 - 60)%
- Moderate satisfaction (61 - 80)%
- Very satisfied (81 - 100)%

Validity and reliability

Job satisfaction scale was used as described by Spector (1997), and instead of 6 points liker like scale, 5 point scale was used. The content validity by senior staff nursing in the faculty of nursing sciences, University of Khartoum. For reliability, scale reliability was assessed by cronabachs, alfa co efficient, which showed to be in excess of 0.8 which can be considered as an indicator of reasonable internal consistency reliability.

Statistical analysis

Statistical package for the social science (SPSS) program - version 23 was used. Descriptive statistic, frequency, percentage and Level of Job Satisfaction.

Ethical consideration

To conduct the study approval was obtained from:

1. Ministry of health Khartoum state
2. Director of selected governmental hospital
3. Each participant before they invited to answer the questionnaire

Results and Discussions

One hundred and sixteen copies of the questionnaires were distributed. One hundred and ten of them were returned completely answered. The response rate was (94.8%). The questionnaires with incomplete answers or of those who refused to participate were excluded from the analysis.

Table 1 shows the distribution of nursing according to their profiles. Eighty nine percent are females; similar finding was reported by Anon (2019). Historically, the majority (91%) of nurses working force has always been female in United State, Majority of participants (73.6%) age between 20-40 years old. More than half of them (59.1%) are married, and (45.5%) of them have no children. According to education profile more than half (54.6%) have bachelor degree, and (33.6%) have Diploma of nursing.

Table 1: Distribution of participants according to their profile

Variable	Frequencies	%
Gender		
Female	98	89
Male	12	11
Age		
20-30	35	31.8
31-40	46	41.8
41-50	18	16.4
>50	11	10
Marital status		
Married	65	59.1
Single	39	35.5
Divorced	4	3.6
Widow	2	1.8
Hospitals		
Khartoum	36	32.7
Omdurman	32	29.1
Khartoum north	42	38.2
Number of children		
Non	50	45.5
1-2	26	23.6
3 \geq	35	30.9
Education		
Diploma	37	33.6
Bachelor	60	54.6
Master	10	9.1
PhD	3	2.7

Table 2 show that (60.9%) of respondents have executive responsibility, and (79.1) of them practices general nursing. Regarding reason for stay in the job, (33.6%) showed that is the only available job, while (28.4%) of them indicated that this job is their passion, and (31.8) see themselves in the same job for the coming years, while (40%) of them as professional see themselves as a nurse working in different place. This mean that (71%) of these respondents planning to stay as a

nurses, similar finding was reported by Irvine & Evans (1995)^[21]. Research indicated that nurses are attracted to work and remain in work because of the opportunities to develop the professional. In contrast to a study conducted by Bjork *et al.* (2007). In Norway, they found that (72.6%) of nurses in the study planned not to continue work as a nurse at hospital for more than one year.

Table 2: Distribution of participants according to their profile (Continue)

Executive responsibility frequencies no %		
Yes	43	39.1
No	67	60.9
Specialty		
General nursing	87	79.1
Medical nursing	5	4.6
Surgical nursing	4	3.6
Pediatric nursing	1	.9
Obstetric nursing	4	3.6
Community	9	8.2
Reason for staying on this job		
Passion	33	30.0
Only job available	39	35.5
Close to home	8	7.3
Suitable environment	14	12.7
Others	16	14.5
As professional how saw self in coming years		
In the same job	35	31.8
In a different job not in nursing	15	13.6
In a different place working as a nurse	44	40
Retired	12	11
Others	4	3.6

Table 3 shows the distribution of participants according to their job satisfaction (Salary, Promotion opportunities, Knowledge and skills). Regarding salaries (62.9%) of nurses strongly agree that they are paid affair salary, but only (16%) of them feel satisfied with salary. Similar result was reported

by Lu *et al.* (2007) who conducted a study of nurses on Mainland-China. They found that (75%) of participant felt dissatisfied with rate of pay. Another study conducted by Semachew *et al.* (2017)^[37] on nurses working in public health hospital in Ethiopia, they found that more than half (59.8%)

of nurses were dissatisfied with their salaries.

According to promotion opportunities, only (23.3%) of participants were satisfied with their chance to promotion. Similar result was reported by Agezegan *et al.* (2014) ^[5] who study nurses in Sidama Zone public health facilities, in southern Ethiopia; they found that most of staff nurses reported promotion as a dissatisfying job aspect.

Regarding participants feeling about their knowledge as skills (86%) of them disagree about their knowledge. As mentioned

by Bjork *et al.* (2007). Nurses who have opportunity for professional development in their job have a higher intention of staying in organization. Also Hoonakker *et al.* (2013) ^[20] found that most tele - ICU nurses are satisfied with their job, and like challenge in their work.

Twenty two percent of participants feel that they will get prompted if they do well, although promotion is one of the facets job satisfaction clusters stated by Spector (1985) ^[39].

Table 3: Distribution of participants according to their job satisfaction (Salary, promotion opportunities, knowledge and skills)

Issues	Strongly agree No (%)	Agree No (%)	Uncertain No (%)	Disagree No (%)	Strongly disagree No (%)	Total
Salary						
I Paid affair salary for the work	73 (62.9)	13 (11.2)	2 (1.7)	8 (6.9)	10 (8.6)	449
I receive overtime for extra work	39 (33.6)	21 (18.1)	6 (5.2)	27 (23.3)	8 (6.9)	359
I feel satisfied with my salary increase	19 (16.)	7 (6.0)	8 (6.9)	41 (35.3)	28 (24.1)	257
I feel unappreciated by what I paid	38 (32.8)	14 (12.1)	5 (4.3)	26 (22.4)	22 (19.0)	335
Total						1400
Promotion opportunities						
I am satisfied with my chance for promotion	27 (23.3)	12 (10.3)	9 (7.8)	41 (35.3)	18 (15.5)	310
Little chance for promotion	24 (20.7)	15 (12.9)	20 (17.2)	28 (24.1)	16 (13.8)	312
Different job can get better promotion	26 (22.4)	10 (8.6)	20 (17.2)	27 (23.3)	16 (13.8)	300
I feel I will get promoted if I do well	26 (22.4)	11 (9.5)	25 (21.6)	28 (24.1)	12 (10.3)	317
Total						1239
Knowledge and skills						
I feel my knowledge and skills are high	14 (12.1)	7 (6.0)	3 (2.6)	43 (37.1)	43 (37.1)	236
My job experience is meeting my expectation	19 (16.4)	11 (9.6)	10 (8.6)	53 (45.7)	15 (12.9)	290
I have enough time for patient/client	14 (12.1)	12 (10.3)	3 (2.6)	54 (46.6)	20 (17.2)	255
My job give me chance for training	19 (16.4)	14 (12.1)	11 (9.6)	42 (36.2)	21 (18.1)	289
Total						1070

Table 4 shows participants relationship with nurses, recognition from others, and reward of the job. From the table only (25.9%) of nurses feel that their work is appreciated by supervisor. Similar finding was reported by Kekana *et al.* (2007) ^[24] who studied job satisfaction of registered nurses in community hospital in Limpopo province, South Africa. They found that (60%) of participants were dissatisfied with hospital management performance appraisal. Quine, L. (1999) ^[35] investigated relationship between support at work and bullying among NHS Community truesst in south east of England. He found that staff who had been bullied had significantly lower level of JS. According to Curtis & Glacken (2012) ^[13], Leaders need to find creative way of improving the fact that contributes to JS among public health nurses. Also Gianfermi & Buchhoiz (2011) ^[18]. Stated that, it is important that nurse administrator have the power to achieve their professional goals.

Kaddourah *et al.* (2013) ^[22] studied impact of J S among nurses in Beirut, Lebanon, the study revealed that one of Job dissatisfaction was inadequate communication with supervisor. In contrast a study conducted by Lu *et al.* (2007) in mainland, China. They found that most (81.2%) of nurses were satisfied with immediate manger.

Forty two percent of participants feel that that they are threatened by fellows. In contrast to the study conducted by Lu *et al.* (2007) in mainland, China. They found that most (80.7%) of nurses studied in mainland were satisfied with fellows. Also Kekana *et al.* (2007) ^[24] found that most (88%) of nurses work in community hospital in Limpopo providence -South Africa having best friends at work. Semachew *et al.*

(2017) ^[37] studied JS among nurses in Jimma zone public hospital-Ethiopia. They found that majority (77.2%) of respondents were very satisfied with nursing peers.

Regarding recognition from others health profession only (31%) of participants receive recognition from others. Similar finding was reported by Tao & Li (2015) ^[40]. They studied factor that influence JS OF ICU nurses in mainland, China. They found that one of the major factor influence J S was lack of respect and recognition.

More than (59%) of nurses in the study are not receiving recognitions from patients. Similar result was reported by Cortese (2007) ^[12] who studies JS and dissatisfaction experienced by nurses' operating in three Italian hospitals. Similar finding is reported by Hamid *et al.* (2013) ^[19], who studies J S among nurses in Pakistan, result indicated that nurses are not respected by patients and their relatives. Also more than half (57.7%) of respondents do not receive recognition from non-nursing fellows. Similar result was reported by Tao & Li (2015) ^[40]. They found that lack of respect and recognition has a major influence on J S among nursing of ICU in Mainland-China. In contrast a study conducted by Deloblle *et al.* (2011) in South Africa. They found that nurses reported satisfaction with co-worker relationships.

Thirty seven percent of respondents feel that their job is rewarding enough, as it is mentioned by Terea & Ngirande (2014) who studied the impact rewarding on JS among nurses in Eastern Cape Province -South Africa. The study revealed that employee reward lead to employee retention.

Table 4: Distribution of participants according to their job satisfaction (Relationships with nurses, recognition from other health professions, and reward of the job)

Issue	Strongly agree No (%)	Agree No (%)	Uncertain No (%)	Disagree No (%)	Strongly disagree No (%)	Total
Relationships with nurses						
My supervisor appreciate my work	30 (25.9)	14 (12.1)	14 (12.1)	32 (27.6)	19 (16.4)	331
I am always well informed on what going on	26 (22.4)	24 (20.7)	24 (20.7)	23 (19.8)	7 (6.0)	351
I feel threatened by my fellow	49 (42.2)	29 (25.0)	12 (10.3)	7 (6.0)	8 (6.0)	419
I feel fellow are fellows competitive	27 (23.3)	21 (18.1)	9 (7.8)	21 (18.1)	10 (8.6)	293
Total						1394
Recognition from other health professions						
I receive recognition from other profession	20 (17.2)	16 (13.8)	15 (12.9)	31 (26.7)	17 (14.7)	288
No nurse show little interest in my work.	15 (12.9)	13 (11.2)	15 (12.9)	35 (30.2)	21 (18.1)	253
I have good relationship with non-nursing fellow	11 (9.5)	9 (7.8)	7 (6.0)	42 (36.2)	30 (25.9)	226
I enjoy to work with other health professionals	10 (8.6)	12 (10.3)	4 (3.4)	45 (38.8)	27 (23.3)	227
Total						994
Reward of the job						
I receive recognition from patients	11 (9.5)	10 (8.6)	4 (3.4)	38 (32.8)	36 (31.0)	219
I receive recognition from non-nursing fellow.	10 (8.6)	9 (7.8)	11 (9.5)	44 (37.9)	23 (19.8)	230
I receive recognition from nursing fellow.	18 (15.5)	12 (10.3)	6 (5.2)	41 (35.3)	22 (19.0)	260
My job is rewarding enough	27 (23.3)	14 (12.1)	13 (11.2)	23 (19.8)	22 (19.0)	298
Total						1007

Table 5 shows distribution of participants according to their J S (work environment, and care service). More than half (57.8%) of respondents indicated that they are working in comfortable environment. Irvine *et al.* (1995) ^[21] showed that work content and work environment had stronger relationship with JS. Also kamarulzaman *et al.* (2011) ^[23], stated that the physical working environment influence employee well-being and directly to their work performance. Similar finding reported by Ioannoli & Sourtzi (2015), who studied JS on Greek nurses. Findings suggested that improvement of the work environment would contribute to healthier and more satisfied workforce.

Sixty two percent of the study group showed that they have the equipment. In contrast a study conducted by Munyewende, *et al.* (2014) ^[33] in South Africa provinces. They found that lack of functioning equipment was one of the comments made nurses in the study.

Regarding care services, result indicated that only (31.1%) of participants agreed that care suitability is ensured for patients, and safely of care provided are granted. Similar result reported by Munyewende, *et al.* (2014) ^[33]. That safely was concerned by nurses in South Africa. Twenty four percent of respondents stated that there is always financial facing quality of care.

Table 5: Distribution of participants according to their job satisfaction (Work environment, care services)

Issue	Strongly agree No (%)	Agree No (%)	Uncertain No (%)	Disagree No (%)	Strongly disagree No (%)	Total
Work environment						
I work in comfortable environment	42 (36.2)	25 (21.6)	3 (2.6)	16 (13.8)	11 (9.5)	362
I am restricted due to limited resources	37 (31.9)	7 (6.0)	4 (3.4)	33 (28.4)	17 (14.7)	308
I have the required equipment	45 (38.8)	27 (23.3)	4 (3.4)	13 (11.2)	6 (5.2)	377
Technology issued efficiently	58 (50.0)	16 (13.8)	6 (5.2)	9 (7.8)	9 (7.8)	377
Total						1446
Care services						
Care suitability is ensured for patients	22 (19.0)	14 (12.1)	13 (11.2)	36 (31.0)	11 (9.5)	288
Care acceptability is ensured for patients	17 (14.7)	9 (7.8)	12 (10.3)	36 (31.0)	20 (17.2)	249
Safety of care provided are guaranteed	20 (17.2)	16 (13.8)	12 (10.3)	29 (25.0)	20 (17.2)	278
There is always financial facing quality of care	21 (18.1)	8 (6.9)	14 (12.1)	22 (19.0)	29 (25.0)	296
Total						1111

Table 6: Shows distribution of participant according to nature of job, communication as nurses, and work load. More than half of them (54.3%) sometimes feel their job is meaningless, and only (18.1%) feel pride from their profession. Most (68.1%) of participant disagree about good communications with others. Similar finding was reported by Hamid *et al.* (2013) ^[19]. They found that nurses were dissatisfied by behavior of doctors, and managers and can be

insulting and take place in front of patients.

Half (51%) of participant feel that their work load is suitable with patient numbers. In contrast nurses in South Africa were being tired at work as reported by Munyewende *et al.* (2014) ^[33] and by Kekana *et al.* (2007) ^[24].

Twenty five percent of participants indicated that work is comfortable in outpatient clinic, while (41, 2%) of them showed that work is comfortable in wards.

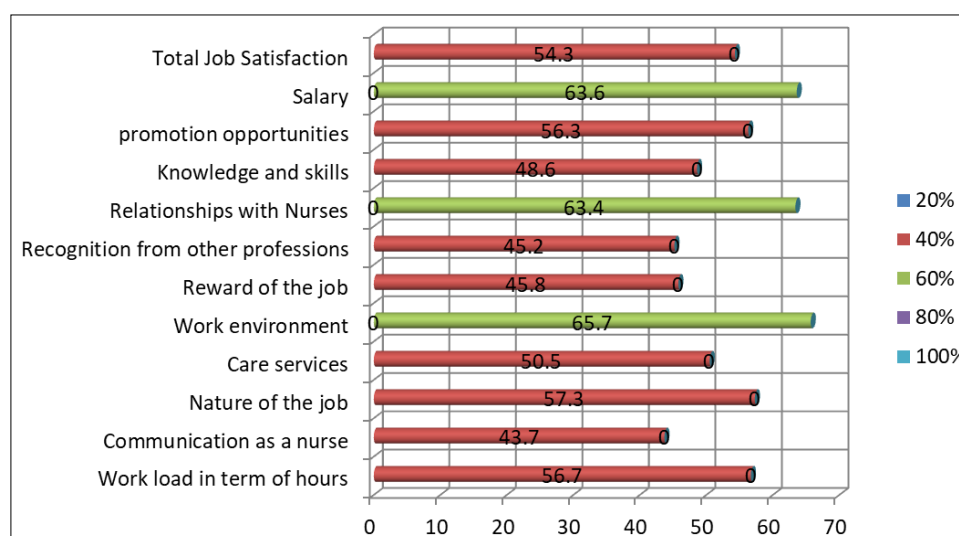
Table 6: Distribution of participants according to their job satisfaction (Nature of the job, communication as a nurse, work load in term of hours)

Issue	Strongly agree No (%)	Agree No (%)	Uncertain No (%)	Disagree No (%)	Strongly disagree No (%)	Total
Nature of the job						
I sometimes feel my job is meaningless	51 (44.0)	12 (10.3)	4 (3.4)	16 (13.8)	13 (11.2)	360
My job is enjoyable	38 (32.8)	20 (1.2)	10 (8.6)	13 (11.2)	13 (11.2)	339
I feel pride from my profession	12 (10.3)	9 (7.8)	5 (4.3)	37 (31.9)	37 (31.9)	222
Supported from administration for my innovation	38 (32.8)	20 (17.2)	10 (8.6)	13 (11.2)	13 (11.2)	339
Total						1260
Communication as a nurse						
Communications are good with others	13 (11.2)	3 (2.6)	3 (2.6)	42 (36.2)	37 (31.9)	207
I have good friend at work	12 (10.3)	3 (2.6)	4 (3.4)	37 (31.9)	45 (38.8)	203
I trust our leadership team	23 (19.8)	11 (9.5)	11 (9.5)	33 (28.4)	22 (19.0)	280
I feel bothered if someone outside criticized	20 (17.2)	15 (12.2)	10 (8.6)	29 (25.0)	23 (19.8)	271
Total						961
Work load in term of hours						
My work load is suitable with patient numbers	34 (29.3)	25 (21.1)	4 (3.4)	26 (22.4)	11 (9.5)	345
My load is equal to other fellows	25 (21.6)	19 (16.4)	12 (10.3)	30 (25.9)	9 (7.8)	306
The work is comfortable in outpatient clinic	17 (14.7)	13 (11.2)	20 (17.2)	35 (30.2)	13 (11.2)	270
The work is comfortable in wards	31 (26.7)	18 (15.5)	13 (11.2)	24 (20.7)	13 (11.2)	327
Total						1248

Job satisfaction score among nurses in the study is showed in the figure blew, which indicated that participant were slightly satisfied with; communication as a nurse (43.7%), recognitions from others profession (45.2%), rewarding of the job (45.8%), promotion opportunities (56.3%), load of work (56.7%), and nature of the job (57.3%).

Regarding salary, participants were moderately satisfied (63.6 %). In contrast dissatisfaction of payment rate was reported by; Willen *et al.* (2007); Kekana *et al.* (2007) [24]; Klopper *et al.* (2012) [25]. In Mainland-China, Limpop province, and South Africa respectively.

A moderate (68.6%) total job satisfaction among participants. Similar result was reported by Liu *et al.* (2017) [28]. They found that moderate level of job satisfaction among nurses in five teaching hospitals in China. A study conducted by Akbari *et al.* (2020) [1], they found that JS of nurses in Tehran, Iran was at a median level. Also Agezgan *et al.* (2014), Ayalew *et al.* (2019) [6] found that nurses in Ethiopia were satisfied with their job, and Elshaer *et al.* (2018) [15] reported that (85.4%) of nurses in Alexandria university hospital, Egypt were satisfied with their job.



(0-20%) Very low satisfaction; (21-40) Moderate low satisfaction; (41-60%) Slight satisfaction; (61-80%) Moderate satisfaction; (81-100%) Very satisfied

Fig 1: Level of job satisfaction among nurses at Khartoum state some governmental hospitals

Conclusion and Recommendation

The overall job satisfaction score among nurses in Khartoum governmental hospital were moderately satisfied. They were slight satisfied with promotion opportunities, care services, rewarding of job, and communication as a nurse.

As nursing staff are among most important resources in health care. Nurses perceive that job satisfaction as being essential for the ability to give high quality and safe Patients care. Researchers recommended ministry of health and administration of governmental hospitals should make

strategies aimed to improve nurse's job satisfaction by; financial rewards; improve work conditions and environment as job satisfaction is vita in promoting retention of nurses.

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References

1. Akbari M, Bagheri A, Darvish M. "Job satisfaction among nurses in Iran: does gender matter?" *Journal of multidisciplinary healthcare* 2020;13:71-78.
2. Anon. Male statistic 2018-2019 facts, job data trends-statistic stata 2019. Accessed from <https://w.w.w.statistics.com.>health>
3. Anon. Role of Nurses in Sudan, In EU-FP7: Human resources for Primary Health Care in Africa 2010. Access from: www.huraPrim.ugent.b/research/role-nurses-Sudan.
4. Armstrong M. A handbook of human resource management practice. 10th ed. Kogan Page Publishing, London 2006, 264.
5. Agezegean A, Belachew T, Yiam E. "Factors Influencing Job Satisfaction and Anticipated Turnover among Nurses in Sidama Zone Public Health Facilities, South Ethiopia." *Nursing research and practice*, article id 909768 2014, 26. [Http://dx.doi.org/10.1155/2014/909768](http://dx.doi.org/10.1155/2014/909768)
6. Ayalew F, Kibwana S, Kibwana S, Shawula, S, Misganaw M, Abosse Z *et al.* "Understanding job satisfaction and motivation among nurses in public health facilities of Ethiopia: a cross-sectional study." *BMC nursing* 2019;18:46.
7. Aziri B. Job satisfaction: A literature review. *Management research and practice* 2011;3(4):77-87.
8. Bartram T, Joiner T, Stanton P. Factors affecting job stress and job satisfaction of Australian nurses: implications for recruitment and retention. *Contemporary Nurs* 2004;17(3):293-304. <https://doi.org/10.572/conu.17.3.293>
9. Bjørk I, Samdal G, Hansen B, Torstad S, Hmilton G. "Job satisfaction in a Norwegian population of nurses: A questionnaire survey." *International journal of nursing studies* 2007;44(5):747-757. doi:10.1016/j.ijnurstu.2006.01.002
10. Buchan J. "Global nursing shortages." *BMJ (Clinical research ed.)* 2002;324(7340):751-752. doi:10.1136/bmj.324.7340.751. PMID 11923146
11. Chen-Chung M, Samuels M, Alexander J. Factors that influence nurses job satisfaction. *JONA* 2003;33(5):293-299.
12. CORTESE CG. "Job satisfaction of Italian nurses: an exploratory study." *Journal of Nursing Management* 2007;15(3):303-312. <https://doi.org/10.1111/j.1365-2834.2007.00694.x>
13. Curtis A, Glacken M. Job satisfaction among public nurses: national survey *journal of nursing management* 2012;22(5). Access online. [Http://onlinelibrary.wiley.com, doi/10.1111/jonm.12026](http://onlinelibrary.wiley.com, doi/10.1111/jonm.12026)
14. Delobelle P, Rawlinson J, Ntuli S, Malatsi I, Decock R, Depoorter A. "Job satisfaction and turnover intent of primary healthcare nurses in rural South Africa: a questionnaire survey." *Journal of Advanced Nursing* 2011;67(2):371-383. doi:10.1111/j.1365-2648.2010.05496.x
15. Elshaer N, Moustafa M, Aiad M, Ramadan. Job stress and burnout syndrome among critical care healthcare workers. *Alexandria journal of medicine* 2018;54(3):273-277. <https://doi.org/10.1016/ajme.2017.06.004>
16. Geiger J, Avit JD. Self-image and job satisfaction in varied setting *Nurd manage* 1988;19(12):50-56.
17. George J, Jones G. Understanding and managing organizational behavior, 5th ed, Pearson, Prentice Hall, New Jersey 2008, 78.
18. Gianfermi RE, Buchholz SW. "Exploring the relationship between job satisfaction and nursing group outcome attainment capability in nurse administrators." *Journal of Nursing Management* 2011;19(8):1012-1019. PMID:22074303
19. Hamid S, Malik AU, Kamran AI, Ramzan M. "Job satisfaction among nurses working in the private and public sectors: a qualitative study in tertiary care hospitals in Pakistan." *Journal of multidisciplinary healthcare* 2013;7:25-35. PMID: 24453494
20. Hoonakker P, Carayon P, Mc Guire K, Khunlertkit A, Wiegmann D, Wood K. "Motivation and job satisfaction of Tele-ICU nurses." *Journal of Critical Care* 2013;28(3):315.e313-15.e321. <https://doi.org/10.1016/j.jcrc.2012.001>
21. IRVINE D, EVANS M. "Job Satisfaction and Turnover Among Nurses: Integrating research findings across Studies." *Nursing Research* 1995;44(4):246-253. Doi: 10.1097/100006199-199507000-00010
22. Kaddourah R, Khalidi A, Shabeen A, AL-Tannir M. "Factors impacting job satisfaction among nurses from a tertiary care centre." *Journal of Clinical Nursing* 2013;22(21-22):3153-3159.
23. Kamarulzaman N, Saleh A, Hashim S, Abdul-Ghani A. "An Overview of the Influence of Physical Office Environments towards Employee." *Procedia Engineering* 2011;20:262-268.
24. Kekana H, du Rand E, Vanwyk N. "Job satisfaction of registered nurses in a community hospital in the Limpopo Province in South Africa." *Curationis* 2007;30(2). Doi - 10.4102/curationis.v30i2.1068.
25. Klopper H, Coetzee S, Pretorius R, Bester P. "Practice environment, job satisfaction and burnout of critical care nurses in South Africa." *Journal of Nursing Management* 2012;20(5):685-695.
26. Kramer M, Claudia S. "Essentials of A Magnetic Work Environment, Part 1" *Nursing* 2004;34(6):50-54.
27. Lee H, Song R, Marn Y, Lee G. "A comprehensive model for predicting burnout in Korean nurses." *Journal of Advanced Nursing* 2003;44(5):534-545.
28. Liu H, Zhang X, Chang R, Wang W. "A research regarding the relationship among intensive care nurses' self-esteem, job satisfaction and subjective well-being." *International Journal of Nursing Sciences* 2017;4(3):291-295.
29. Loannou P, Sourtz P. Impact of job satisfaction on Greek nurses health-related quality of life, safety and health at work 2015;6(4):324-328.
30. Locke E. The nature and causes of job satisfaction, handbook of industrial and organizational psychology. Chicago: Rand M Cnally 1976, 1297-1349.
31. Lu H, Alison E, While K, Louise B. "Job satisfaction and its related factors: a questionnaire survey of hospital nurses in Mainland China." *International journal of nursing studies* 2007;44(4):574-588.
32. McHugh M, Lee Cimiotti A, Sloane JD, Aiken L. "Nurses' widespread job dissatisfaction, burnout, and frustration with health benefits signal problems for patient care." *Health affairs (Project Hope)* 2011;30(2):202-210.
33. Munyewende P, Rispel L, Chirwa T. "Positive practice environments influence job satisfaction of primary health care clinic nursing managers in two South African provinces." *Human resources for health* 2014;12(1):27.
34. Pilkington W, Wood J. "Job satisfaction, role conflict and

- role ambiguity- a study of hospital nurses." *The Australian journal of advanced nursing: a quarterly publication of the Royal Australian Nursing Federation* 1986;3(3):3-14.
35. Quine L. "Workplace bullying in NHS community trust: staff questionnaire survey." *BMJ (Clinical research ed.)* 1999;318(7178):228-232.
36. Russell C, Gelder F. "An International Perspective: Job Satisfaction among Transplant Nurses." *Progress in Transplantation* 2008;18(1):32-40.
37. Semachew A, Belachew T, Tesfaye T, Adinew Y. "Predictors of job satisfaction among nurses working in Ethiopian public hospitals, 2014: institution-based cross-sectional study." *Human resources for health* 2017;15(1):31.
38. Smith P, Kendall L, Hulin C. *The measurement of Satisfaction in Work and retirement*. Chicago ILL, R and McNally 1975.
39. Spector P. "Measurement of human service staff satisfaction: Development of the Job Satisfaction Survey." *American Journal of Community Psychology* 1985;13(6):693-713.
40. Tao H, Li Y. "Examining perception of job satisfaction and intention to leave among ICU nurses in China." *International Journal of Nursing Sciences* 2015;2(2):140-148.
41. Terera S, Ngirande H. "The impact of rewards on job satisfaction and employee retention." *Mediterranean Journal of Social Sciences* 2014;5(1):481-887.
42. Willem A, Buelens M, Jonghr I. "Impact of organizational structure on nurses' job satisfaction: A questionnaire survey." *International journal of nursing studies* 2007;44(6):1011-1020.