Assessment of Nurses' Job Satisfaction and Associated Factors in Management of Neurosurgery Procedures at Fujita Health University Bantane Hospital (Aichi, Nagoya, Japan)

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Abstract

Introduction   Job satisfaction is a professional aspect that contributes to the achievement of objectives in general and in the health sector; it is a golden standard for having quality care. The satisfaction of nurses is a path toward humanized nursing. This article aims to evaluate the job satisfaction among nurses of the neurosurgery department at Bantane Hospital.

Materials and Methods   We conducted a cross-sectional study including 74 nurses at Bantane Hospital in Nagoya Japan in August 2023. Nurses responded to a questionnaire relating to job satisfaction. Univariate analysis was supported by bivariate analyses at the 95% significance level.

Results   The survey revealed that nurses aged between 18 and 29 were mostly represented (62.2%). Drip-injection medication was the most preferred activity (15 times) by Bantane nurses. The satisfaction rate was 63.5% and the fact of considering nurses point of view, good interpersonal relationships, and a considerable lunchtime period was statistically significant ($p < 0.05$).

Conclusion   Transcendental motivation is a priority in the approach to humanize nursing by considering both monetary and nonmonetary incentives to motivate nurses.

Keywords
► assessment
► job satisfaction
► nurses
► neurosurgery
► associated factors

Introduction

Empowerment and supportive professional practice environments are associated with improved quality of care and higher job satisfaction (JS) among nurses.[1] In addition, nurses' JS, error-reporting culture, and environmental factors of nursing quality are major predictors of safety practices.[2] High JS is related to better organizational environments, lower job stress, decreased role conflict, higher organizational and professional,[3] and better work–life balance.[4] The low JS of nurses in university hospitals has been associated with burnout and high stress.[5] As such, JS is an important variable leading to improvement in the work environment of nurses as well as a higher quality of medical care.[1]

Nurse means to treat with care.[6] A nurse is a person who has basic qualification in nursing education and practices nursing in their area.[7] A qualified nurse offers nursing care for the promotion of health and illness prevention.[8] They form a significant connection between the patient and the doctor by providing healthcare and reducing the communication gap between the patient and the doctor.[9] For the health system to work appropriately, nurses must be motivated, which is directly associated with their JS.[10] JS is an enjoyable emotional condition resulting from appraisal of one's job experience.[11] Features influencing JS are type of job, salary, promotion, management, and working circumstances.[12] A well-organized organization usually sees a worker as a main source of quality and productivity.[13] In the neurosurgery department, nurses have to take care of patients before surgery, during surgery, as well as after surgery.

A neuroscience nurse assist patient with brain and nervous system disorders. Some of their duties include monitoring neurological exams, administrating medication, and consulting physicians on patient progress; The neuro nurse must be astute and observant as effective, rapid change management can ensure better patient outcome. Skills acquired as neuro nurse include airway management, seizure management, identify and managing raised intracranial pressure and neurological assessment skills. Applying the skills and knowledge of a neuro nurse will make a difference to the outcome of the patients.[14]

The department of neurosurgery is a critical and severe case department that accepts patients with complex conditions involving diverse disease types and many patients. Common diseases of neurosurgery include cerebral hemorrhage and cerebral infarction. Some patients are comatose. If the nursing care is insufficient and the patients' disease conditions are not identified timeously, the treatment effect will be affected, possibly resulting in disability or death.[15] In the neurosurgery department, surgery is the main treatment method, but it comes with substantial risks of complications and a poor prognosis.[16] Nursing interventions are critical in neurosurgical work and they not only relate to the patients' safety while in hospital but also directly influence their prognosis and the reputation of the hospital.[17]

The purpose of this study is to assess JS and associated factors among nurses in neurosurgery department at Bantane Hospital in Japan.

Materials and Methods

We conducted a cross-sectional study on nurse practitioners in the intensive care unit (ICU), neurological ward, and the operating room (OR) at Fujita Health University Bantane Hospital.

The study was conducted from July 1st to August 31st 2023.

We use an exhaustive sampling including all the nurse practitioners working in ICU, neurological ward, and operating room at Fujita Health University, Bantane Hospital.

The investigation tool is a questionnaire that was given anonymously to nurses working in the ICU, the operating room, as well as those in the neurosurgery ward at Fujita Health University Bantane Hospital in Japan.

Data Analysis and Statistical Method Management

In terms of input and encoding, Excel 2013 software (Microsoft Corp, Redmond, Washington, United States) was used as a tool. This software also allowed for the design of our two data entry proformas.

Once encoded, the databases were exported to SPSS version 23 (SPSS, Armonk, New York, United States) for reasons of analysis.

The p-value was used as statistical tests and as a measure of association at the significance level of 0.05.

Study Variables

Sociodemographic and socioprofessional variables were considered in this study.

Results

In this section, we will present the results of our research on JS by nurses at Bantane Hospital in Nagoya, Japan, in aggregate form. A total of 74 nurses participated in the study (response rate = 81%), and all responded to all the questions used in the present analysis (valid response rate = 91.4%).

►**Table 1** indicates that nurses aged between 18 and 29 were mostly represented (62.2%) versus those aged 40 or over (12.2%). The means age was 29.1 years ($\pm$7.8).

Most of our respondents (nurses) are from neurosurgical ward 6 (46%; neurosurgery).

►**Table 2** indicates that out of a total of 74 nurses, 47 (63.5%) declared that they have JS against 27 who declared

Table 1 Nurses' sociodemographic variables

Variables	Frequency	Percentage
Age		
18–29	46	62.2
30–9	19	25.7
40 years and over	9	12.2
Gender		
Female	62	83.8
Male	12	16.2

Table 2 Nurses' professional characteristics

Variables	Frequency	Percentage
Years of service		
< 5 years	67	90.5
5 years and more	7	9.5
Workload bearable		
No	53	71.6
Yes	21	28.4
Overtime reasonable		
No	20	27.0
Yes	54	73.0
Job satisfaction		
No	27	36.5
Yes	47	63.5
Total	74	100.0

Table 3 Frequency distribution of nurses' agreement with job satisfaction

Variables	Level of agreement in percentage		
	Agreement (%)	Disagreement (%)	p-Value
Consideration of nurses' points of view by head nurses	74.6	25.4	0.000 S
Interpersonal relationship	66.7	33.3	0.036 S
Sufficient (considerable) lunchtime	80	20	0.005 S
Age			
18–29	34.8	65.2	0.9 NS
30–39	36.8	63.2	
40 years and over	44.4	55.5	
Years of service			
<5 years	34.3	65.7	0.23 NS
>5 years	57.1	42.9	
Gender			
Female	40.3	59.7	0.12 NS
Male	16.7	83.3	

Abbreviations: NS, nonsignificant; S, significant.

that they do not. Regarding the assessment of overtime granted, 73% of nurses found that these hours are reasonable. As for the workload, it was considered unbearable in 71.6 cases by the nurses. Nurses with less than 5 years of service were the majority in 91% of cases.

►**Table 3** shows that there is a correlation between JS and lunchtime ($p = 0.005$), interpersonal relationship ($p = 0.036$), and consideration of nurses point of view by head nurses ($p = 0.000$), but gender, age, and years of service have no correlation with JS ($p > 0.05$).

Discussion

The survey was conducted at Bantane Hospital (in Aichi, Nagoya, Japan). A questionnaire was distributed to all nurses in OR, neurological ward, and ICU ($n = 100$).

Responses were obtained from 81 nurses but only74 were included (91,4% response rate) for their completeness.

Nurses' Sociodemographic Variables

►**Table 1** indicates that the average age of nurses is 29.12 years (± 7.8) with a maximum age of 18 years and a minimum of 52 years, while the majority of nurses are in the age ranged between 18 and 29. This result regarding age is different from that found by Majima et al who found in their study in Japan that the majority group was those whose ages were between 20 and 29 years (45.2%).[1] This age group is naturally made up of professionally active people.

The female sex was the most represented, unlike an Ethiopian study which found that the majority of nurses were male.[18] Our results, although lower, corroborate those of another study previously conducted in Japan.[4] This result could be explained by the fact that the nursing profession, since the beginning of its history, has always been a profession with a strong female predominance; and this trend continues to this day.[19] Indeed, according to the Canadian Nurses Council, (OIIQ), the nursing profession is

made up of 88.6% women and 11.4% men, all specialties combined.[20]

Distribution of Nurses by Department

Our study included nurses from three work departments, namely the ICU, the operating room, and the neurosurgery ward. We observed that neurosurgery ward represented most respondents followed by the operating room, while the ICU represented only (►**Fig. 1**). This can be explained by the high number of nurses in this ward.

Nurses' Professional Characteristics

Regarding the years spent in the service, the majority of nurses had less than 5 years in the service as indicated in ►**Table 2**. Our results are different from those found in Ethiopia where the majority of nurses had 10 years or more in the service.[18]

Overall, seven nurses out of ten experienced JS (►**Table 2**). Our result is close to that found by the Ayalew in Ethiopia.[21] Most nurses find that the workload is unbearable, while regarding overtime, it is considered reasonable. In Qatar, nurses are not satisfied with the 12 hours shift that is considered as unbearable.[22]

JS is essential for the implementation of the humanized nursing and a study reveals that humanized nursing can effectively improve the psychological state of patients with subarachnoid hemorrhage caused by intracranial aneurysm
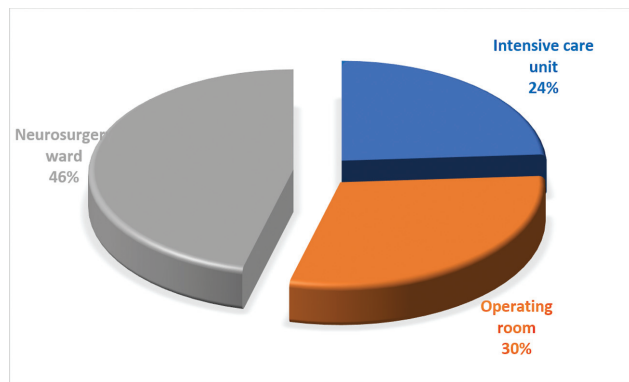
Fig. 1 Distribution of nurses by department.

during the perioperative period of interventional embolization, enhance their compliance with treatment, reduce complications, and make patients more satisfied with nursing services.[23]

Association Satisfaction

As said before, the majority of nurses experienced a job and this JS is statistically linked to the consideration of nurses' points of view by head nurses ($p = 0.000$), to the interpersonal relationship ($p = 0.036$) as well as the rest time that is considered sufficient ($p = 0.005$) as indicated in the ►**Table 3**. A study conducted in Ethiopia revealed that the proportion of nurses' JS was 43.6% and the factors motivating this JS were advancement (adjusted odds ratio [AOR] = 2.64; 95% confidence interval [CI]: 1.17, 5.96) and recognition (AOR = 2.56; 95% CI: 1.08, 6.08).[18] The consideration of nurses' point of view by the hierarchy (head nurses) as well as interpersonal relations are among the motivating factors on the managerial level. Nurse leaders' leadership styles affect nurses' work-related well-being.[24]

In Canada, family and professional development motivations had a positive influence on nurses' satisfaction.[25] Jacobs et al indicated that "internal communication" has a significant positive effect on JS.[26] The lack of interpersonal communication in a hospital environment can be at the origin of conflicts and even failures on the professional plant, and therefore good interpersonal communication in a hospital environment is a major asset in the improvement of health care.

Limitations

Some variables were not included in our study (salary, marital status, religion, promotion, etc.). Our study focused on the flagship services that receive neurosurgery cases. This did not allow us to include nurses from other departments to have a global vision.

Conclusion

We conducted a cross-sectional descriptive study on the evaluation of nurses' JS and associated factors at Fujita Health University Bantane Hospital.

Nowadays, the humanized nursing is an inevitable concept toward the improvement of nursing care and JS is a motivating factor that contributes qualitatively to health care. It is important to clean up the working environment to create favorable conditions for the improvement of nursing care which is important.

Conflict of Interest
None declared.

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