Article

Workload and job satisfaction among nurses in a tertiary level hospital

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Abstract: Workload and job satisfaction are interrelated and have an impact on health care. A cross sectional study was conducted to assess the workload and job satisfaction among nurses in a tertiary level hospital, Rajshahi. Three hundred and eighty four Nurses were selected and interviewed with semi-structured questionnaire. Collected data were checked and transferred in to SPSS version 25 for analysis. Frequency, Percentage, Mean, SD and other statistics were calculated. In the study, 63.8 % of the respondents ages were within 21-30 years and majority (94.2%) was female. More than half 57.03% of the respondents had expressed low job satisfaction, 40.62% expressed moderate satisfaction and only 2.34% of nurses were highly satisfied with their job. About 25% respondent’s opinion regarding workload in surgical wards and 18% in medicine ward. In this study, nurse patient’s ratio in - pediatric medical unit was- 16:1, surgical unit- 15:1, medicine unit- 14:1. About 96.9% got support from colleague, 88.5% respondents realize shortage of staff in that hospital. In this study near half of the nurses had not enough time to provide emotional support to the patient and almost 90% stated on shortage of staff nurses in the hospital. Fifty percent of the nurses expressed on excess workload and more than half of the nurses satisfied regarding nursing care given to the patients. Among the nurses 30% dissatisfied with the hospital work environment and overall job security. In this study, 88.5% respondent’s opined regarding shortage of staff nurses in that hospital. Health facilities requires increase of nursing personnel.

Keywords: nurse; workload; job satisfaction; tertiary level hospital

1. Introduction

Bangladesh is a small and densely populated underdeveloped country with limited natural resources. To meet the demand of these vast populations, the country’s manufacturing and service sectors are growing tremendously. The healthcare sector is also growing as manufacturing and other service sectors. To sustain in the health market, it is very important to provide quality service to its customers, which is achieved fruitfully when a country could ensure the satisfaction of healthcare employees especially the nurses. In recent years, providing high-quality health care delivery system is a fundamental challenge. To reach that quality level, reasonable level of nurses’ job satisfaction should be attained (Elsherbeny and El-Masry, 2018). Likewise, it is also known that there is close connection between the job satisfaction of health care staffs and the total quality of health services. Job satisfaction in health care workers have a great impact on quality, effectiveness and work efficiency and at the same time on healthcare costs. Besides it is importance for patients and healthcare system as a whole, Professional satisfaction in healthcare workers indirectly connected with absence from work, human relations and organization of work.
Kumar et al. (2013) finding was not similar to the findings of another study which reported that the majority of the participants were not satisfied with their job. Job satisfaction is a very important attribute which is frequently measured by organizations. The most common way of measurement is the use of rating scales where employees report their reactions to their job. Questions relate to rate of pay, work responsibilities, variety of tasks, promotional opportunities, the work itself and co-workers. Job satisfaction is an individual’s cognitive, affective and evaluative reactions towards his or her job. It is the state where one’s needs and one’s outcomes match well, and a combination of cognitive and affective reactions to the differential perceptions of what an employee wants to receive compared to what he or she actually receives. Although the cost of nurse job dissatisfaction has not been directly measured, the high cost of turnover rate has been well established. Patient fall rate also increases the cost of healthcare (Gulavani and Shinde, 2014). Evidently, it is a factor that would induce the employee to work in the long-term position, and how pleased an employee is with his or her position of employment. Job satisfaction is the extent of which employees like their job. It is also defined as the attitude and feelings of the people about their work. Thus, job satisfaction is one of the most vital factors that define efficiency and productivity of human resources (Elsherbeny and El-Masry, 2018). The low job satisfaction among nurses and the outcome such as the issues that affect both quality and cost of patient care. Organizations such as the American Nurses Association (ANA) and JCAHO have established quality indicators for healthcare institutions to use as monitoring standards. The ANA proposed that job satisfaction is one of the sensitive indicators for quality of patient care. Both organizations recognized staff satisfaction as a human resources quality indicator (Mohite et al., 2014).

Job Satisfaction can be an important indicator of how employees feel about their job and a predictor of work behaviors such as organizational citizenship, absenteeism and turnover. Further, job satisfaction can partially mediate the relationship of personality variables and deviant work behaviors. In many countries, job satisfaction survey is regularly conducted and by monitoring obtained data, it is possible to notice omissions in organization of work (Mohite et al., 2014). Nurses need enthusiasm and feeling love, caring attitude and alarming concern to fulfill the needs of their patients (Henry and Henry, 2004). They have to face many awkwardness in providing care to the patients with their quick changing roles and separate environment (Mok and Au-Yeung, 2002). Quality assurance in health includes all the movements taken to encourage and intensify health care (Massoud et al., 2001). Studies have provided evidence that satisfied workers tend to be more productive, creative, committed and will eventually contribute to higher quality patient care and patient satisfaction. Low Job satisfaction indeed contributes to nurses’ in efficiency and affects their dedication to job quality and care given (Alvarez and Fitzpatrick, 2007).

2. Materials and Methods
The present research had been undertaken with the objective to assess the workload and job satisfaction among nurses in a tertiary level hospital.

2.1. Ethical consideration
Prior to the commencement of this study ethical approval of the research protocol from the Institutional Review Board (IRB) of National Institute of Preventive and Social Medicine (NIPSOM) was taken.

2.2. Research Design
The study design was a cross sectional study.

2.3. Study Setting
The study was conducted at Rajshahi Medical College Hospital (RMCH), Rajshahi.

2.4. Study period
The study was conducted from 1st January 2019 to 31st December 2019.

2.5. Study Sample
The study population included staff nurse (both male and female) with a work experience more than six month in a tertiary level hospital.

2.6. Sampling technique
Purposive sampling was used for data collection.

2.7. Sample size
Sample size was calculated through following formula.
\[ n = \frac{Z^2pq}{d^2} \]

From the above formula the estimated sample size was 384. Total 384 samples were collected from tertiary level hospital in Bangladesh.

2.8. Inclusion criteria
Permanent employee in a tertiary level hospital having work experience in the study place for more than six months and willing to participate in the study.

2.9. Tool of the study
The Semi Structured Questionnaire and observational checklist was prepared in English and then translates into Bangla. Questionnaires were planned designed according to the objectives to get information of the different variables. At the beginning of data collection, consent from concerned authorized person was taken. The purpose of the study was explained in details. Interview was taken separately. The interviews were done by face to face. The statistical analysis was conducted using SPSS version 24. The findings of the study were presented by frequency, percentage in tables and graphs. Means and standard deviations for continuous variables and frequency distributions for categorical variables were used to describe the characteristics of the total sample.

2.10. Scoring of the question
- Part A consists of seven socio-demographic questions.
- Part - B: contains 17 items that help to measure workload among nurses. After intensive literature reviewed it was found that internationally standard nurse-patient ratio is 1:3 and nationally standard nurse-patient ratio is 1:5 and in this study, nurse patient ratio 1:5 is taken as standard. So Increase nurse patient ratio indicate increase the workload.
- Part - C: contains 17 items that help to measure Job Satisfaction among nurses by using McCloskey/Mueller Satisfaction Scale (MMSS). A five-point Likert item represents each of the items. Likert item has options from 1 to 5 where 1 represents “Strongly dissatisfied”, 2 “Dissatisfied”, 3 “Satisfied”, 4 “Moderate Satisfied” and 5 Strongly Satisfied. The subjects were asked to choose answer from 5 choices of each for Likert item question. The total score ranged from 17 -85. We categorise the score 17 – 39 Low satisfied, 40 – 59, Moderate satisfied and 60 – 85 highly satisfied. The higher scores indicated the higher level of job satisfaction.
- Part - D: Nurse job satisfaction related factors having 6 items question which five question have yes/no answer and one question having four items measured with a 4-point Likert scale ranged from 1 (Very Poor Hygiene) to 4 (Very Good Hygiene).

3. Results and Discussion

Table 1. Distribution of the respondents according to socio-demographic characteristics among nurses (n=384).

| Attributes          | Frequency | Percent |
|---------------------|-----------|---------|
| Age                 |           |         |
| 18 – 20 years       | 5         | 1.3%    |
| 21 – 30 years       | 243       | 63.8%   |
| 31 – 40 years       | 81        | 21.1%   |
| 41 – 50 years and above | 55   | 13.8%   |
| Sex                 |           |         |
| Female              | 355       | 92.4%   |
| Male                | 29        | 7.6%    |
| Religion            |           |         |
| Muslim              | 361       | 94%     |
| Hindu               | 21        | 5.5%    |
| Christian           | 2         | 0.5%    |
| Educational Qualification |       |         |
| Diploma in Nursing  | 248       | 63.4%   |
| BSc in Nursing      | 72        | 19.2%   |
| MPH/ MSc            | 64        | 17.4%   |
| Marital Status      |           |         |
| Married             | 310       | 80.7%   |
| Unmarried           | 72        | 18.8%   |
| Divorced            | 2         | 0.5%    |
| Monthly income      |           |         |
| Below- 20000 Taka   | 8         | 2.1%    |
| 20001 – 30000 Taka  | 214       | 55.7%   |
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Table 1 shows among the respondents, 63.8% had job experience of 21-30 years were 92.4% female and Muslim were 94%. More than half were (63.4%) Diploma in Nursing and 55.7% had monthly income of 20001 – 30000 Taka, 83.6% respondents had job experience between 1-10 years.

| Job experience | 30001 – 40000 Taka | 40001 – 50000 Taka and above |
|----------------|--------------------|-----------------------------|
| 1 – 10 years   | 112                | 50                          |
| 11 – 20 years  | 321                |                             |
| 21 – 30 years  | 36                 | 27                          |

Table 1 shows that 98.4% of the nurses prefer works at day shift and 1.6% of them prefer work at night shift.

Figure 1. Distribution of the respondents according to preference of duty shift (n=384).

Figure 1 shows that 98.4% of the nurses prefer works at day shift and 1.6% of them prefer work at night shift.

Table 2. Distribution of nurses according to hospital department.

| Name of unit           | No of unit | Total bed per unit | Total patient admitted per unit | Excess patients admitted | Number of nurses work in that units |
|------------------------|------------|--------------------|---------------------------------|--------------------------|------------------------------------|
| Medical unit           | 8          | 240                | 560                             | 320                      | 120                                |
| Surgical unit          | 8          | 240                | 472                             | 232                      | 96                                 |
| ICU                    | 1          | 15                 | 15                              | 0                        | 20                                 |
| CCU                    | 1          | 56                 | 56                              | 0                        | 40                                 |
| Gynae & Obs unit       | 4          | 120                | 260                             | 140                      | 60                                 |
| Pediatric medical unit | 4          | 120                | 249                             | 129                      | 45                                 |
| Pediatric surgical unit| 1          | 35                 | 65                              | 30                       | 16                                 |
| Total                  | 27         | 826                | 1677                            | 851                      | 397                                |

Table 2 shows that, total bed in above wards had 826 and number of total excess patients against bed was 851 and total nurse’s amount was 397 among them in Medical unit bed capacity was 240 and excess patients admitted was 320, in surgical unit capacity was 240 and excess patients admitted was 232, in gynae & Obs unit had 120 bed and excess patients was 140, in child medical unit had 120 bed and excess patients was 129, in child surgery unit had 35 bed and excess patients was 30 and only CCU and ICU where no excess patients was admitted.

Table 3. Distribution of the respondent’s workload in the hospital unit according to patient - nurse ratio (n=384).

| Name of unit | Total bed | Total patient | Total nurse | Total nurses working in each shift | Patient-Nurse ratio |
|--------------|-----------|---------------|-------------|-----------------------------------|--------------------|
| Medicine unit| 240       | 560           | 120         | 120/3=40                          | 14:1               |
| Surgical unit| 240       | 472           | 96          | 96/3=32                           | 15:1               |
| ICU          | 15        | 15            | 20          | 20/3=7                            | 2:1                |
| CCU          | 56        | 56            | 40          | 40/3=13                           | 4:1                |
Table 3 shows that in medicinal unit Nurse-Patient ratio was 14:1, in surgical unit it was 15:1, Child medical unit it was 16:1 and in Child surgical unit the ratio was 12:1 that indicate more workload according to standard nurse-patient ratio.

Table 4. Distribution of the respondent’s opinion regarding workload (n=384).

| Workload related attributes                                      | Yes | No |
|------------------------------------------------------------------|-----|----|
|                                                                  | Frequency | Percent | Frequency | Percent |
| Get support from colleague                                       | 372 | 96.9 | 12 | 3.1 |
| Enough staff to adequately cover the unit                        | 163 | 42.4 | 221 | 57.6 |
| Enough time to complete all of nursing tasks                    | 202 | 52.6 | 182 | 47.4 |
| Enough time to provide emotional support to the patient         | 224 | 58.3 | 160 | 41.7 |
| Answer all the health related advised to the patients           | 261 | 68.0 | 123 | 32.0 |
| Enough breaks for rest                                          | 120 | 31.2 | 264 | 68.8 |
| Realize shortage of staff in this hospital                      | 340 | 88.5 | 44 | 11.5 |
| Know about Job description                                      | 338 | 88.0 | 46 | 12.0 |

Table 4 shows that, 96.9% respondents give opinion they are get support from colleague, 88.5% respondents realize shortage of staff in that hospital, 88.0% respondents had concept about Job description, 68.0% respondents said they are answered all the health related advised to the patients, 58.3% respondents think they had enough time to provide emotional support to the patient, 52.6% respondents think they had enough time to complete all of nursing tasks, 42.4% respondents given opinion that they had enough staff to adequately cover the unit and 31.2% respondents said they had enough breaks for rest.

Table 5. Distribution of the respondents according to job satisfaction (n=384).

| Attributes                                        | Types of satisfaction |
|--------------------------------------------------|-----------------------|
|                                                  | Strongly dissatisfied | Dissatisfied | Satisfied | Moderate satisfied | Strongly satisfied |
| Satisfaction on wages and salaries               | N (%)                 | N (%) | N (%) | N (%) | N (%) |
| Satisfaction on hospital rules and regulations   | 6 (1.6)               | 15 (3.9) | 211 (54.9) | 143 (37.2) | 9 (2.3) |
| Satisfaction on hospital work environment        | 9 (2.3)               | 63 (16.4) | 142 (37.0) | 164 (42.7) | 6 (1.6) |
| Satisfaction on hospital overall job security    | 20 (5.2)              | 127 (33.1) | 104 (27.1) | 125 (32.6) | 8 (2.1) |
| Satisfaction on Annual leave receive from the hospital | 51 (13.3)         | 118 (30.7) | 105 (27.3) | 107 (27.9) | 3 (0.8) |
| Satisfaction on shift rotation                   | 8 (2.1)               | 50 (13.0) | 176 (45.8) | 145 (37.8) | 5 (1.3) |
| Satisfaction about nursing care given to clients  | 22 (5.7)              | 34 (8.9) | 275 (71.6) | 50 (13.0) | 3 (0.8) |
| Satisfaction on working with colleagues in this hospital | 11 (2.9)             | 30 (7.8) | 219 (57.0) | 102 (26.6) | 22 (5.7) |
|                                                   | 2 (.5)                | 14 (3.6) | 329 (85.7) | 34 (8.9) | 5 (1.3) |

Table 5 shows that 54.9% respondents satisfied on Wages and salaries in this hospital and rest of them strongly Dissatisfied 1.6%, Dissatisfied 3.9%, Moderate Satisfied 37.2% and Strongly Satisfied 2.3%. In hospital rules and regulations 37.0% respondents satisfied and rest of them Strongly Dissatisfied 2.3%, Dissatisfied 16.4%, Moderate Satisfied 42.7% and Strongly Satisfied 1.6%. On hospital work environment 27.1% respondents satisfied and rest of them Strongly Dissatisfied 5.2%, Dissatisfied 33.1%, Moderate Satisfied 32.6% and Strongly Satisfied 2.1%. Respondents had satisfaction on hospital overall job security 27.3%, Strongly Dissatisfied 13.3%, Dissatisfied 30.7% and Moderate Satisfied 27.9%. Satisfied on annual leave that are received from the hospital 45.8%, and Moderate Satisfied 37.8%. Respondents 71.6% satisfied on shift rotation,
Strongly Dissatisfied 5.7%, Dissatisfied 8.9%, Moderate Satisfied 13% and Strongly Satisfied 8%. Respondents satisfied about nursing care given to clients 57.0%, Strongly Dissatisfied 2.9%, Dissatisfied 7.8%, Moderate Satisfied 26.6% and Strongly Satisfied 5.7%. In working with colleagues in this hospital respondents 85.7% satisfied.

**Table 6. Distribution of the respondent’s regarding job satisfaction (n=384).**

| Job satisfaction related attributes                      | Yes | No                  |
|-----------------------------------------------------------|-----|---------------------|
|                                                           |     |                     |
| Get enough support from immediate supervisor              | 261 | 123                 |
| Share experiences among colleague                         | 323 | 61                  |
| Have chance of promotion                                  | 299 | 85                  |
| Have accommodation facility                               | 155 | 229                 |

Table 6 shows that, 84.1% respondents share experiences among colleague, 77.9% respondents have chance of promotion, 68.0% respondents get enough support from immediate supervisor and 40.4% respondents recommend that have accommodation facility.

**Table 7. Distribution of the respondents according to overall job satisfaction (n=384).**

| Categorization of satisfaction level | Frequency | Percent |
|-------------------------------------|-----------|---------|
| Low                                 | 219       | 57.03   |
| Moderate                            | 156       | 40.62   |
| Highly                              | 9         | 2.34    |
| Total                               | 384       | 100     |

Table 7 shows more than half (57.03%) respondents had expressed low job satisfaction, (40.62%) expressed moderate satisfaction and unfortunately, only (2.34%) of nurses were highly satisfied.

**4. Conclusions and Recommendations**

Health care employees’ job satisfaction is the key factor of a health center’s efficiency. Job satisfaction can be ensure by supportive management attitude, balance salary and benefits, friendly working environment, participation in decision making process and organization’s caring gesture about career and welfare related matter. In this study conclude that shortage in nursing and human resources faced by the health facilities requires nurses to work overtime to meet the patient’s needs.

On the basis of the finding of this study, the following recommendations may be suggested. Appraisal and Acknowledgement of co-workers behavior and supports should be encouraged. The study recommends that workload should be reduce by maintain nurse-patient ratio. As nurses have reported increasing satisfaction regarding, it can be improved by hospital rules, regulations, security and merit promotions, awards.

**Conflict of interest**

None to declare.

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