The Study of the Relationship between Financial Payments of the Nurses and Patient Satisfaction in Selected Hospitals in Isfahan in 2010

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Abstract

Introduction: Nursing care is one of the most highly available services in the hospitals and forms an important aspect of patient satisfaction. Salaries and wages are important motivators for nurses at work. Thus, this study is aimed at examining the relationship between financial payments of the nurses and patient satisfaction in selected hospitals in Isfahan in 2010.

Methods: This is a descriptive-analytical and cross-sectional study in which all nurses and patients in selected wards in selected hospitals were included. In this study, 200 patients were selected based on sampling methods and the salaries of all nurses were used to calculate the mean. Data were collected by a checklist and a researcher-made questionnaire. The validity of the questionnaire was verified by management professionals. Descriptive and inferential statistics (one-way ANOVA, t-test and Pearson correlation) were used. The SPSS software was used (Ver.16) to analyze the results.

Results: The rate of satisfaction in private and charity hospitals is more than that in public hospitals and it is more in CCU and obstetrics unit. The nurses' salaries were negatively correlated with the patient satisfaction. The correlation was not meaningfully significant in any of the hospitals but it was meaningfully significant in all units except CCU.

Conclusion: The mean of patient satisfaction was lowest in public hospitals while it was highest in charity hospitals. The mean of salaries in charity hospitals was half of that in public hospitals. There were several factors that could have an impact on nurses' satisfaction which could indirectly affect their pay.

Key words: Payments, Nurse, Patient Satisfaction, Hospital

Introduction

The rapid movement toward quality development and the need to follow the healthcare standards are among the major issues to be studied (1). One of the main consequences of focusing on quality is the satisfaction of those who receive the services (2-4). Deming defines quality as "meeting the client's needs at the present time and in future" (5).

The goal of providing healthcare services is to have a healthy society. One of the ways to assess healthcare services is to evaluate the patients' viewpoints as a reliable source (6). Patient satisfaction is one of the important tasks of the hospital managers (7) and it is one of the main factors which has an impact on the development of healthcare facilities (8-9).

Nursing care constitutes the major part of the presented services in healthcare systems and nurses have more contacts with patients than other medical and paramedical staff. Thereby, patients have their own expectations of them. Nowadays, one of the key factors in evaluating the quality of nursing care is patient satisfaction (10).

However, nurses also have their own needs and the quality of their performance depends on their abilities and motivation (11). Hence, in order to determine the deficiencies in nursing care, it is essential to carry out further studies about the relationship between patient satisfaction and nursing care (12-13).

Pay is undoubtedly an important general motivator for employees in an organization. It is used to satisfy the employees' primary and secondary needs and it is their right to be paid under employment contract (14). The reward system and payment shape the employees' behavior and motivate them to work in line with organizational objectives (15-16).

I dare to say that the most important cause of unfairness and dissatisfaction in all organizations in general and healthcare organizations in particular is associated with a wide range of staff payment. On one end, there is staff income which is low and on the other end, there is specialists' income which is very high. The existence of such a kind of gap in the same setting, although depending on specialty, aggravates the payment situation (17).
It should be noted that the different approaches to pay healthcare providers have varying effects on the quality of healthcare services, controlling expense and administrative management (18).

Otani (2004) found that nursing care has a significant effect on patient satisfaction at the onset of hospitalization (19). Al-Mailam (2005) in a study carried out in the United States found that there is a significant relationship between the patient satisfaction from nursing care and patient satisfaction from hospital services (20).

In another study carried out by Abramowitz, it was shown that satisfaction from hospital services is best manifested by considering the patients' needs and patient satisfaction from nursing services (21). The mean of patient satisfaction from nursing care in a series of studies (6, 19-28) was higher than 70%. Jahanpir (2006) states that his study as well as some other studies carried out in Iran indicated that salary, fee and job security are important factors causing nurses dissatisfaction (29).

Shahbazi (2002), Maghrab (2005), Mirzabeigi (2009) achieved similar findings (30-32). Kavari (2004) and Solaghar (2004) also emphasized the role of salary and fee (13, 33). Farsberg (2001) found that paying based on services provided produces different kinds of motivation. On the one hand, internal motivation may outweigh external motivation. On the other hand, paying based on the services provided may draw the patient attention to the expenses and lead to shorter hospital stay (34).

Many studies were carried out to evaluate the patient satisfaction from nursing care and its role in total satisfaction from hospital services (6, 20-27). Other studies evaluated the role of salary and fee in nursing dissatisfaction (13, 24, 28-30). Farsberg concluded that paying based on performance provides different kinds of motivation including "internal motivation" (34). Yet, there is no study considering the role of external motivation in nursing performance. The aim of this study is to investigate the relationship between financial payments nurses receive and the patient satisfaction in selected hospitals in Isfahan.

**Materials and methods**

It is a descriptive-analytical, cross-sectional study in which the raw data and documents related to the first six months of 2010 were used. All nurses and patients in departments of internal medicine, medical surgery, obstetrics and gynecology, emergency and CCU in Isfahan public, private and charity hospitals were studied. The reason for selecting the mentioned departments was that these wards were essential in hospitals and existed in all hospitals and it can provide comparability criteria. No sampling was used for nurses’ salaries and patients were sampled based on the following formula:

\[
 n = \frac{(z_{1-a} + z_{1-p})^2}{d^2} \alpha = 0.05 \quad z_{1-a} = 1.96 \\
 \beta = 0.2 \quad z_{1-\beta} = 0/84 \\
 p = 0/5 \quad d = 0/1 \\
 n = 200
\]

After the pilot sampling, simple stratified sampling was used to determine the sample size (n=200). Sampling ratio was used to determine the sample in each hospital: public hospitals with frequency of 90 constituted 45% of the whole sample, private hospitals with frequency of 74 formed 37% of the whole sample and charity hospitals with frequency of 36 formed 18% of the whole sample.

A researcher-made questionnaire was used to collect data. The validity of the questionnaire was verified by management authorities and in the pilot study. Its reliability was calculated to be 0.87 based on Cronbach α. It has two parts. The first part is about the patients' demographic information and the second part contains sixteen questions based on the objectives of the study. The items were scored based on a Likert scale from five (very little) to one (very much). The questionnaire was distributed to the patients.

The mean of nurses' base salary, overtime and fee for services was derived from the documents available in accounting office. The quantitative data obtained were analyzed to determine their frequency, mean and standard deviation and inferential statistics such as one way ANOVA, t-test and Pearson correlation were used to determine the kind of relationship between variables.

**Results**

Of the patients referred to the five departments of the selected hospitals, 200 patients were chosen. 12% of the patients were from obstetric and gynecology department, 34.5% from emergency department, 12.5% were from internal medicine department, 19.5% were from medical surgery department and 11.5% were from CCU.

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**Table 1.** The mean of nurses’ payment according to department and hospital

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Department</th>
<th>Emergency</th>
<th>Gynecology &amp; Obstetrics</th>
<th>Internal Medicine</th>
<th>Medical Surgery</th>
<th>CCU</th>
<th>Total Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>6636947.5</td>
<td>5310514.3</td>
<td>5129193.5</td>
<td>7916187.5</td>
<td>5773498</td>
<td>6240765.5</td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td>4118216.5</td>
<td>3610006</td>
<td>4811087</td>
<td>4304837</td>
<td>5088080</td>
<td>4920494.8</td>
<td></td>
</tr>
<tr>
<td>Charity</td>
<td>3072138</td>
<td>3100200</td>
<td></td>
<td>2853316</td>
<td></td>
<td>3021487.6</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>5089235.3</td>
<td>4077748</td>
<td>5014674.8</td>
<td>5321632.9</td>
<td>5415888.6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 2.** The mean of patient satisfaction from nursing services according to department and hospital

<table>
<thead>
<tr>
<th>Department</th>
<th>Emergency</th>
<th>Obstetrics and Gynecology</th>
<th>Internal Medicine</th>
<th>Medical Surgery</th>
<th>CCU</th>
<th>Total Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>70.39</td>
<td>10.40</td>
<td>10.75</td>
<td>65.86</td>
<td>19.27</td>
<td>60.08</td>
</tr>
<tr>
<td>Private</td>
<td>80.52</td>
<td>14.94</td>
<td>14.51</td>
<td>86.53</td>
<td>10.17</td>
<td>81.87</td>
</tr>
<tr>
<td>Charity</td>
<td>83.56</td>
<td>12.49</td>
<td>89.23</td>
<td>6.60</td>
<td>.....</td>
<td>87.62</td>
</tr>
<tr>
<td>Total</td>
<td>76.39</td>
<td>13.60</td>
<td>80.34</td>
<td>12.89</td>
<td>73.30</td>
<td>19.21</td>
</tr>
</tbody>
</table>
The mean of nurses’ payment in selected departments of public hospitals was the highest and it was the lowest in charity hospitals. The mean of nurses’ base salary, overtime and fee for services was derived from the documents available in accounting office. (See table 1). The mean of patient satisfaction was highest in charity hospitals and lowest in public hospitals (see table 2).

The mean of patient satisfaction from nursing services in patients who did not have diploma is 78.41± 14.24, in patients holding diploma is 74.54±16.79; in patients holding postdiploma, it was 87.92± 5.62; in patients holding BA, it was 77.50±13.75; and in postgraduate patients, it was 62.08±33.17. P-value=0.083 indicated that there was no meaningful relationship between patients satisfaction and their level of education.

The mean of patient satisfaction from nursing services among patients having different insurance was not much different (P-value=0.777). It was 78.70±14.45 for patients holding social security insurance, 77.87±17.65 for those holding care services insurance, 75.42±9.38 for those holding armed forces insurance, 72.81±14.72 for those holding other insurances, and 79.04±14.01 for those not holding any insurance.

It was shown in Table 3 that there was an indirect relationship between nurses’ payment and the patient satisfaction from their services in each hospital. This relationship was reverse in public and charity hospitals and direct in private hospitals although it was not meaningful in any of the mentioned hospitals (P-value>0.05). It was indicated in Table 4 that there was a reverse relationship between nurses’ payment and patient satisfaction from their services in all selected departments. This relationship was meaningful in all departments except CCU.

Table 3. the relationship between variables of nurses’ payment and satisfaction from nursing services according to the selected hospitals

<table>
<thead>
<tr>
<th>Pay</th>
<th>Type of hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td>r=0.204, p=0.054</td>
<td>public</td>
</tr>
<tr>
<td>r=0.207, p=0.077</td>
<td>Private</td>
</tr>
<tr>
<td>r=0.030, p=0.864</td>
<td>charity</td>
</tr>
</tbody>
</table>

Table 4. the relationship between nurses’ payment and patient satisfaction from their services in selected departments

<table>
<thead>
<tr>
<th>Pay</th>
<th>Hospital departments</th>
</tr>
</thead>
<tbody>
<tr>
<td>r=0.49, p=0.001</td>
<td>obstetrics and gynecology</td>
</tr>
<tr>
<td>r=0.42, p=0.000</td>
<td>emergency</td>
</tr>
<tr>
<td>r=0.52, p=0.000</td>
<td>internal medicine</td>
</tr>
<tr>
<td>r=0.659, p=0.000</td>
<td>medical surgery</td>
</tr>
<tr>
<td>r=0.312, p=0.148</td>
<td>CCU</td>
</tr>
</tbody>
</table>

The mean of patient satisfaction from nurses’ services is 77.5 which is defined as relatively favorable and is in line with results in other studies (6, 20- 26).

While the mean of satisfaction varies from hospital to hospital, it is very high in charity and private hospitals (80) and lower in public hospitals (69.5). The mean of patient satisfaction from nurses’ services is significantly lower in public hospitals than other hospitals and it is highest in charity hospitals (=86.7) while nurses’ payment in charity hospitals is about half of that in public hospitals. According to authorities’ views, it is expected to receive 75% to 100% positive responses from the receivers of health care services (35). Thus, if the satisfaction is less than what is expected, the underlying causes should be examined thoroughly.

Jahangir (2006) in his study about nurses’ job satisfaction stated that the results of his study and other studies carried out in Iran revealed that salary and fee are the main causes of nurses’ dissatisfaction (29). Shahbazi (2002), Maghreb (2005) and Mirzabeigi (2009) achieved similar results (30, 32) and Kavari (2004) and Sodagar (2004) put emphasis on the role of salary and fee (13, 33).

According to the results of the above studies, nurses’ salary and fee have an impact on the quality of their performance and job satisfaction. In this regard, nurses’ salary and perquisite can lead to their dissatisfaction in charity hospitals.

Another researcher showed that nurses were not much satisfied with their job especially their salaries (34). The results of Golchin study revealed that 88% of nursing dissatisfaction was due to their salaries (38).

The more nurses feel that their salaries are paid fairly, the more attention they pay to their patients and the more care they provide for their patients (39). Kim et al.’s (40) findings derived from nurses working in Korean hospitals support this. However the results of the current research revealed that there is not a relationship between the rate of the nurses’ salary and the patients’ satisfaction from them.

Conclusion

One of the influential factors on the nurses’ behavior toward their clients is the nurses’ knowledge about how fairly they are paid (39). In fact, one of the critical factors having effect on the nurses’ behavior towards his/her patients is the nurses’ perception of how fairly salaries are distributed among them. In fact, one of the primary needs of the nurses is to receive a salary that matches with the kind of services they provide for the patients. However, in professional nursing practice that is usually stressful, this is not taken into account. Nurses in Iran compared with other countries receive low salaries. If we try to increase their salaries the nurses’ motivation increases and it in turn results in promoting health care services in general and patient satisfaction in particular.

As far as the findings of this study are concerned, there was not a meaningful relationship between the patients’ satisfaction from nursing services and the amount of nurses’ salary. It can be said that although nurses are not satisfied with their salaries, they do not let it to affect the quality of their work. They morally feel themselves responsible for assisting the patients and satisfying their needs. Therefore, under such circumstances, it seems necessary for the concerned authorities to make efforts to
solve the nurses’ problems and promote their monetary and welfare conditions.

**Ethical considerations**

Process owners in the hospitals and other participants willingly filled in the questionnaire. They were assured that the collected data were analyzed collectively and were used only for the purpose of doing research. The findings of the study are presented to the sections involved in the research if they wish. The researcher tried to avoid bias and observe honesty in all stages of the study.

**Acknowledgement**

We thereby express our gratitude to the managers and all the nurses in different hospitals taking part in this study. Although they had high workload, they filled in the questionnaires carefully and patiently.

**References**

