Abstract
The quality of nursing services is one of the challenges of health systems and nurses are responsible for providing quality care to patients. The purpose of this research is to study the relationship between nurses’ social responsibility and the quality of nursing delivered services in educational and treatment centers. This study used a descriptive and correlational method. Using stratified random sampling, from 15 December 2015 to 28 September 2016, 150 nurses and 450 patients were selected respectively. The research instruments included Carol Social Responsibility Questionnaire and modified version of SERVQUAL questionnaire. There was a direct relationship between the services delivered to patients and nurses’ social responsibility (r= 0.45 and p= 0.04). The planners and nursing authorities take appropriate consideration to increase the quality of nursing services in terms of reliability, responsiveness, assurance, and empathy in order to increase the social responsibility of nurses.

Keywords: Responsibility, Social responsibility, Quality of services, Nursing.

Introduction
Corporate social responsibility (CSR) is an essential part of the management of an organization. It is obvious that CSR describes an innovative and proactive approach; it may also be beneficial for the organization by ensuring bigger increase in productivity. CSR defines an organization’s social responsibilities as containing economic, legal, ethical, and altruistic responsibilities. Carroll’s description of CSR reflects the fact that organizations with social responsibility have to make profits and conform to the law and ethics. The CSR organizational field draws on the overarching sustainable progress norm, which encourages organizations to pay equal attention to their environmental, altruistic, social, and economic performance.

Methods and Results
This descriptive and correlational research was conducted at educational health and treatment centers of Hamadan University of Medical Sciences, Iran, from 15 December 2015 to 28 September 2016. The population included all the nurses and hospitalized patients in the educational, health and treatment centers of Hamadan University of Medical Sciences.

A sample of 150 nurses and 450 patients were selected, using stratified random sampling and simple random sampling respectively. The sample size of 150 nurses was determined, by the formula \( r = 0.25 \) (based on the significance level of correlation coefficient), the reliability of this test being 95% and the test power is 80%. By replacing these values, the minimum number of samples was 124 nurses and 3 patients were selected for each nurse. The number of sample nurses and patients assigned 20% of the total number of samples was added, because of the possibility of not returning the questionnaires. A total of 150 nurses and 450 patients were included in the sample.

The inclusion criteria for nurses were: having at least two years of work experience, a bachelor’s or higher degree in nursing, and a willingness to participate in this study. Inclusion criteria for patients were: more than 24 hours of hospitalization, and willingness to participate in the study.

In nursing, there has been some deliberation to describe the quality of nursing care and the established professional principles for quality care. The concentration on quality will offer competence and invention in care, focused on both prevention and cure (NHS 2005, Scottish government 2010a). So, understanding and awareness of the factors contributing to the enhancement of the nursing care is critical to the development and promotion of the nursing services and client satisfaction. The purpose of this research is to study the relationship between nurses’ social responsibility and the quality of nursing services in the educational and treatment centers of the Hamadan University of Medical Sciences in 2015.
The research instruments included Carol Social Responsibility Questionnaire and modified version of SERVQUAL questionnaire. The reliability of the Carol Social Responsibility Questionnaire was reported as 81% by Ghalavandi et al., and the SERVQUAL questionnaire’s reliability was reported as 0.96% by Estaky and Atafar. Both the questionnaires have been rated based on a Likert 5-point scale, with 1 indicating strongly disagree, and 5 indicating strongly agree. Concerning the nurses’ social responsibility, earning 35 to 81 points meant the lowest social responsibility, 81.1 to 129 meant an average social responsibility, and 129.1 to 175 ratings meant a high level of social responsibility. Regarding the quality of delivered services, a score of 15-35 meant low service quality, a score of 35-55 indicated an average service quality, and 55-75 points indicated a high level of service quality. The content validity of the research instruments was approved by a panel of experts; and for the instruments’ reliability, Cronbach’s alpha coefficient was used. In this study, the reliability of the nurses’ social responsibility questionnaire and of the SERVQUAL questionnaire were calculated as 0.86 and 0.88, respectively. This study has been approved and registered by the Hamadan University of Medical Sciences (No. 9409245162) and the Ethics Committee (Exclusive ID No. IR.UMSHA.REC.1394.365).

Data was described in frequencies, percentages, and mean scores (standard deviation). Also Pearson correlation test was used in relation to “Determining the relationship between the mean score of nurses’ responsibility and each of its dimensions with the average quality of services provided to patients in Hamadan University of Medical Sciences”.

The average age of the nurses was 37±8.4 years and the highest percentage indicated that 61.3% were females, 70% single, 80% held a bachelor’s degree, and 80% works in rotation shifts. The mean age of the patients was 39±1.4 years and the highest frequencies indicated that 61.3% were females, 74.4% married, 30% held an associate degree, and 44.5% had been hospitalized for four to five days. Moreover 70% of the nurses indicated high levels of legal responsibility, 23.3% had high economic responsibility, and 76.7% showed high moral responsibility and 86.7% of the nurses had high level of altruistic responsibility. Overall, 72.6% of nurses demonstrated high social responsibility. The highest mean (4±0.4) was related to altruistic responsibility, and the lowest was related to economic responsibility (3.3±0.4). The nurses’ responsibility distribution and its dimensions, in the educational and treatment centers of the Hamadan University of Medical Sciences, are presented in Table-1.

Regarding the quality of services, the patients appraised the nursing services to be of high quality, with 90% score for aspects of reliability, responsiveness, and the ability to ensure of quality, and in the aspect of empathy, 85.7%. Overall, about 91.1% of patients appraised the quality of the services delivery to be of a high level.

Table 1: Nurses’ responsibility absolute and relative frequency distribution and its dimensions in educational health and treatment centers of Hamadan University of Medical Sciences.

<table>
<thead>
<tr>
<th>Nurses’ responsibility</th>
<th>Low N (%)</th>
<th>Average N (%)</th>
<th>High N (%)</th>
<th>Total N (%)</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legal Responsibility</td>
<td>0 (0)</td>
<td>45 (30)</td>
<td>105 (70)</td>
<td>150 (100)</td>
<td>3.6 (±0.4)</td>
</tr>
<tr>
<td>Economic Responsibility</td>
<td>0 (0)</td>
<td>115 (76.7)</td>
<td>35 (23.3)</td>
<td>150 (100)</td>
<td>3.3 (±0.4)</td>
</tr>
<tr>
<td>Ethical Responsibility</td>
<td>0 (0)</td>
<td>35 (23.3)</td>
<td>115 (76.7)</td>
<td>150 (100)</td>
<td>3.9 (±0.4)</td>
</tr>
<tr>
<td>Altruistic Responsibility</td>
<td>0 (0)</td>
<td>20 (13.3)</td>
<td>130 (86.7)</td>
<td>150 (100)</td>
<td>4 (±0.4)</td>
</tr>
<tr>
<td>Nurses’ Overall Responsibility</td>
<td>0 (0)</td>
<td>41 (27.3)</td>
<td>109 (72.6)</td>
<td>150 (100)</td>
<td>3.7 (±0.4)</td>
</tr>
</tbody>
</table>

Table 2: The absolute and relative distribution of quality of the services delivered to patients and its dimensions in educational health and treatment centers of Hamadan University of Medical Sciences.

<table>
<thead>
<tr>
<th>Quality of Services Provided to the Patient’s</th>
<th>Low N (%)</th>
<th>Average N (%)</th>
<th>High N (%)</th>
<th>Total N (%)</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability</td>
<td>0 (0)</td>
<td>45 (10)</td>
<td>405 (90)</td>
<td>450 (100)</td>
<td>4.3 (±0.5)</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>15 (3.3)</td>
<td>30 (6.6)</td>
<td>405 (90)</td>
<td>450 (100)</td>
<td>4.3 (±0.6)</td>
</tr>
<tr>
<td>Assurance</td>
<td>25 (5.6)</td>
<td>20 (4.4)</td>
<td>405 (90)</td>
<td>450 (100)</td>
<td>4.1 (±0.7)</td>
</tr>
<tr>
<td>Empathy</td>
<td>28 (6.3)</td>
<td>36 (8)</td>
<td>386 (85.7)</td>
<td>450 (100)</td>
<td>4.1 (±0.6)</td>
</tr>
<tr>
<td>Overall Quality of Provided Services</td>
<td>0 (0)</td>
<td>40 (8.9)</td>
<td>410 (91.1)</td>
<td>450 (100)</td>
<td>4.2 (±0.4)</td>
</tr>
</tbody>
</table>
Reliability and responsiveness had the highest mean (4.3±0.5) and (4.32±0.6), and the lowest mean was related to assurance and empathy (4.13±0.6) and (4.323±0.4). The quality of the services delivered to the patients and its dimensions in the educational and treatment centers of the Hamadan University of Medical Sciences is presented in Table-2.

There was a positive and significant relationship between the quality of services delivered to the patients and the nurses' social responsibility (r = 0.45 and p = 0.04). Also, there were positive relationships between the dimensions of services' quality delivered to the patients and all the dimensions of the nurses' social responsibility. In other words, by improving the sense of responsibility of nurses, the quality of delivered services improves. The average rating of the correlation coefficients of the different dimensions of the nurses' social responsibility, and the quality of the services delivered to the patients is shown in Table-3.

**Discussion**

The main purpose of improving the quality in clinical fields is to provide best possible clinical care to the patients. In this study there was a positive and significant relationship between the quality of services delivered to the patients and the nurses' social responsibility. This positive and significant relationship was found in all the dimensions, which means that by improving the nurses' sense of social responsibility, the quality of the delivered services improves. CSR is the incorporation, in the organizational activities to maximize value construction, and to prevent the adverse effects of organizational actions on the environment. Lee et al showed that among 1,866 patients with myocardial infarction, 91.7% were satisfied with the provided care. On the other hand, Mtivaqi evaluated the satisfaction with the quality of services to be at an average level. This difference may be due to the impact of the cultural conditions on the patients' satisfaction with the quality of services. CSR allows higher goals for the quality of working life to be achieved, as it allows actions to encourage health more effectively. Results of a study by Su et al indicated that CSR clearly affects perceived corporate reputation and client satisfaction, which, in turn, considerably affect client obligation and reactions. Ghalavandi et al concluded that there is a significant relationship between social responsibility, legal responsibility, economic responsibility, ethical responsibility, and teamwork.6 Due to the positive, effective, and constructive characteristics of responsibility, the organizations need to put their effort into promoting this desirable feature; which would subsequently enhance the quality of patient care.

This study had a few limitations as well. However social responsibility and the quality of delivered nursing services can be associated without there being a causal relationship between the variables. We cannot make causal conclusions from correlational findings between social responsibility and the quality of delivered nursing services because we cannot rule out all different explanations for correlational findings.

The sample size is small due to inadequate student response. This study may have limitations with respect to the generalization of the findings. Maybe the study involved a specific group of nurses and patients, or the relations between the variables were only studied in some circumstances. It may be ambiguous whether the correlational findings may generalize to other nursing groups or situations. Moreover, in our future research, we would like to examine the mediators of the social responsibility and the quality of delivered nursing services.

**Conclusion**

Based on the findings of this study, there is a direct and positive relationship between the quality of the services
delivered to the patients and the nurses’ social responsibility in all its aspects. Providing grounds for social responsibility is one of the crucial factors in improving the quality of the services. The findings of this research provide appropriate and new insights to the managers, the nursing planners, and the nursing education authorities, so that there can be improved focus on the service quality and the nurses sense of social responsibility.

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References