Patient Satisfaction With Nursing Care: Measuring Outcomes in an International Setting

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Patient Satisfaction With Nursing Care

Measuring Outcomes in an International Setting

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OBJECTIVE: The purpose of this study was to assess patient satisfaction with nursing care.

BACKGROUND: Patients’ satisfaction with nursing care is considered an important factor in explaining patients’ perceptions of service quality.

METHODS: The study was conducted in a major tertiary hospital in Riyadh, Saudi Arabia. An exploratory approach utilizing cross-sectional survey design was used. Data were collected from 424 patients through patients’ interviews using the Arabic version of the Newcastle Satisfaction With Nursing Scale.

RESULTS: The results showed a high level of satisfaction among patients in all hospital areas. Female patients were significantly more satisfied than males with no differences among other groups.

CONCLUSION: Patient satisfaction with nursing care remains an important factor in explaining patients’ perceptions of service quality. International healthcare settings should systematically monitor the relationship between nursing care and experience to support quality care provision.

Satisfaction results from meeting expectations. The higher one’s expectations, the less service average performance can meet or exceed them, with the result often being reduced satisfaction or even dissatisfaction. The higher the perceived level of performance, the more likely that expectations will be exceeded, resulting in satisfaction. Patient satisfaction is a term that can be interpreted differently by patients; its meaning can also differ for the same patient at different times. Patient satisfaction has been defined “as the patient’s perception of care received compared with the care expected.”[4][5] Aiello et al concluded that patients base their expectations on their encounters with behaviors of nurses. Bowling indicated that there is prevalent recognition in health policy of the significance of evaluating health services from patients’ perspectives and that patients’ evaluations of their healthcare are now an established component of quality assessment, mainly through surveys of patient satisfaction.[6]

The Relevance of Patient Satisfaction

Patient’s satisfaction is an essential component in assessing quality of healthcare.[7][8] According to O’Connor et al, “It’s the patient’s perspective that is increasingly being viewed as a meaningful indicator of health services quality and may, in fact, represent the most important perspective.”[9][10] Satisfaction and quality assessment are often used interchangeably, and although they have some elements in common, satisfaction is generally recognized as the broader concept that can be viewed at the individual service encounter (transaction) level or at a more global level, encompassing all experiences with an organization.[3]

The quality of nursing care significantly influences patient satisfaction. Quality nursing care can be defined as care carried out by nurses meeting the patients’ expectations.[10] Patient satisfaction with nursing care
is considered an increasingly important factor in explaining patients’ perceptions of service quality. Perceptions about what is quality nursing care differ between nurses and patients and across care settings. Zhang indicated that patients find satisfaction in aspects other than the technical expertise of the hospital staff, primarily the human aspect of caring. For hospitalized patients, satisfaction represents a balance between the patient’s perception and expectation of their nursing care. Patients’ satisfaction has been widely advocated as an outcome measure of quality nursing care. Measures of patient satisfaction have been found to correlate directly with treatment compliance, nursing quality, and outcome of care.

Studies have demonstrated varying results concerning the relationship between patient characteristics and patient satisfaction with nursing care. The patients’ ability to evaluate their care is diminished when they do not have enough knowledge about their condition. Research indicates that older people tend to be more satisfied with most aspects of hospital care than do younger people. In addition, patients might be reluctant to be honest when assessed for their satisfaction if they feel that they may be identified because of fears of retaliation by care providers. Because patient satisfaction is a subjective evaluation of the care received, it must be assessed from the patients’ perspectives.

Few studies report patient satisfaction with health services in Saudi Arabia or other areas in the Middle East. Data reporting satisfaction with nursing care are limited in number and relatively recent. Study findings are inconsistent and highlight the need for further research. This study is one of few studies to report Saudi patient satisfaction with nursing care and contributes to the literature.

**Purpose**

The purpose of this study, a cross-sectional survey design, was to assess patient satisfaction with nursing care at King Abdulaziz Medical City in Riyadh (KAMC-R), which is 1 of the main tertiary hospitals in Saudi Arabia.

**Participants and Setting**

The study sample constituted all patients who were admitted to medical, surgical, and obstetrics and gynecology wards at KAMC-R during the period of data collection. Inclusion criteria for the participants included the following: (1) be 18 years or older, (2) have been in the ward for 2 nights or more, (3) alert and oriented, and (4) agree to give informed consent to participate in the study. Exclusion criteria included the following: patients in critical care areas or other specialized units, day-care patients, and patients younger than 18 years. Patients meeting the inclusion criteria were invited to participate. To determine the sample size, Cohen’s technique for power analysis was used. The sample size was computed based on the t test for independent means (2-tailed). The assumption in using the t test is that the populations’ samples are normally distributed and that they are homogeneous. The G*Power 3.0.10 software (Franz Faul 2008; Kiel University, Germany) was used to compute sample size. A total sample of 200 participants was obtained for an α of .05, a power of 0.80, and medium effect size of 0.40. The actual sample obtained in the study was 424 patients.

**Data Collection and Instrument**

Patients’ satisfaction with nursing care was assessed using the Newcastle Satisfaction With Nursing Scale (NSNS), Arabic version. The NSNS is considered parsimonious and empirically supported. The scale provides information about nursing quality from patients’ perspectives. In addition, specific items of the scale can be used to monitor particular aspects of nursing practice. Scale scores could be monitored over time to build up population norms. The NSNS includes demographic information, satisfaction with nursing care scale, and 1 item scale (7-point response scale) of overall patient satisfaction. The satisfaction with nursing care part consists of 19 items. All items are scored on a 5-point Likert scale (1 = not at all satisfied, 2 = barely satisfied, 2 = quite satisfied, 4 = very satisfied, and 5 = completely satisfied). The total score was computed and transformed to yield an overall satisfaction score of 0 to 100, where 100 denote complete satisfaction. The 1-item scale on overall patient satisfaction serves as stand-alone scale and used to check validity and reliability of participants’ response in the total score of the 19-item scale. The NSNS was found to be valid and reliable in previous studies. The Arabic version of the scale was translated from English by Alasad and Ahmad. Translation and back-translation was conducted by 2 professionals and checked for face and content validity by a panel of bilingual nursing experts. Beaton and colleagues’ guidelines for adaptation of self-reported measures were used to guide the translation process. Alasad and Ahmad reported Cronbach’s α internal consistency reliability of the Arabic version of the NSNS to be .93. In the current study, Cronbach’s α was .92.

A total of 446 patients admitted to KAMC-R between October 2011 and December 2012 meeting the inclusion criteria were invited to participate. Four hundred twenty-four of the patients (95%) who were invited agreed to participate. Data were collected through standardized interview with patients by a single trained
The data collector read the scale items, and participants were asked to rate their satisfaction with nursing care by selecting 1 number best describing their opinion in each item of the scale. Patients were able to read through each item while listening to it read by the data collector. Patients’ responses were then filled in the questionnaire by the data collector.

**Ethical Considerations**

Participation in the study was voluntary and based on informed consent. The study was reviewed and approved by the institutional review board (IRB) at KAMC-R. Ethical integrity was monitored by a research coordinator reporting directly to the IRB. Periodic reports were submitted to the IRB on the process of data collection, consenting of participants, and protection of their rights.

**Data Management and Analysis**

All descriptive and inferential statistics were computed using the Statistical Package for the Social Sciences (SPSS) version 20 (New York). Preliminary data analysis was conducted to describe the study sample and report mean of satisfaction for the entire sample and among groups. Satisfaction with different aspects of care was presented based on the mean score of individual items. Inferential statistics (*t* test and analysis of variance [ANOVA]) were used to explore differences among groups of patients in relation to satisfaction and selected aspects of care.

**Results**

A total of 424 patients participated in the study; 62.7% (n = 266) of them were female. Participants’ average age was 43.7 (SD, 17.4) years, and the majority (76.2%, n = 323) had less than high school education, with 91 (21.5 %) reported as illiterate. Median length of hospitalization was 6 nights with a range of 2 to 70 for all patients. Most participants (n = 336) were residents of the central region of Saudi Arabia and are described in the Table, Supplemental Digital Content 1, http://links.lww.com/JONA/A425.

The mean satisfaction score for all participants was 90.67%, which means that patients were highly satisfied. Table 1 shows the mean (scale of 5) satisfaction score for all items of the satisfaction scale for all participants and for medical, surgical, and gynecological patients. Items are sorted according to the total mean. The highest (mean, 4.83) satisfaction was with the item “the amount of privacy nurses gave you,” and the lowest (mean, 4.17) satisfaction was for the item “how quickly nurses came when you called for them” for all patients.

The result of ANOVA revealed no significant differences between medical, surgical, and gynecological wards (*P* > .05) in the overall satisfaction scores and in all individual items of the satisfaction scale. Table 2

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**Table 1. Mean Satisfaction Score for Items of the Satisfaction Scale for All Patients**

<table>
<thead>
<tr>
<th>Scale Item</th>
<th>All (N = 424)</th>
<th>Medical (n = 141)</th>
<th>Surgical (n = 124)</th>
<th>Obstetrics/Gynecology (n = 159)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The amount of privacy nurses gave you</td>
<td>4.83</td>
<td>4.76</td>
<td>4.78</td>
<td>4.92</td>
</tr>
<tr>
<td>Nurses’ awareness of your needs</td>
<td>4.79</td>
<td>4.75</td>
<td>4.72</td>
<td>4.88</td>
</tr>
<tr>
<td>How willing nurses were to respond to your requests</td>
<td>4.78</td>
<td>4.74</td>
<td>4.72</td>
<td>4.86</td>
</tr>
<tr>
<td>Nurses’ treatment of you as an individual</td>
<td>4.69</td>
<td>4.75</td>
<td>4.68</td>
<td>4.65</td>
</tr>
<tr>
<td>How nurses listened to your worries and concerns</td>
<td>4.66</td>
<td>4.70</td>
<td>4.66</td>
<td>4.62</td>
</tr>
<tr>
<td>Nurses’ manner in going about their work</td>
<td>4.60</td>
<td>4.69</td>
<td>4.58</td>
<td>4.53</td>
</tr>
<tr>
<td>The type of information nurses gave to you about your condition and treatment</td>
<td>4.54</td>
<td>4.59</td>
<td>4.51</td>
<td>4.52</td>
</tr>
<tr>
<td>The amount of time nurses spent with you</td>
<td>4.54</td>
<td>4.60</td>
<td>4.47</td>
<td>4.55</td>
</tr>
<tr>
<td>Nurses’ helpfulness</td>
<td>4.53</td>
<td>4.59</td>
<td>4.45</td>
<td>4.52</td>
</tr>
<tr>
<td>The amount of freedom you were given on the ward</td>
<td>4.53</td>
<td>4.60</td>
<td>4.46</td>
<td>4.51</td>
</tr>
<tr>
<td>How nurses helped your relatives’ or friends’ minds at rest</td>
<td>4.53</td>
<td>4.63</td>
<td>4.43</td>
<td>4.52</td>
</tr>
<tr>
<td>How capable nurses were at their job</td>
<td>4.51</td>
<td>4.49</td>
<td>4.42</td>
<td>4.61</td>
</tr>
<tr>
<td>The amount nurses knew about your care</td>
<td>4.49</td>
<td>4.56</td>
<td>4.37</td>
<td>4.49</td>
</tr>
<tr>
<td>The way nurses explained things to you</td>
<td>4.49</td>
<td>4.50</td>
<td>4.44</td>
<td>4.52</td>
</tr>
<tr>
<td>How often nurses checked to see if you were okay</td>
<td>4.45</td>
<td>4.39</td>
<td>4.40</td>
<td>4.54</td>
</tr>
<tr>
<td>The amount of information nurses gave you about your condition and treatment</td>
<td>4.41</td>
<td>4.46</td>
<td>4.33</td>
<td>4.43</td>
</tr>
<tr>
<td>The way the nurses made you feel at home</td>
<td>4.33</td>
<td>4.39</td>
<td>4.29</td>
<td>4.31</td>
</tr>
<tr>
<td>They are always being a nurse around if you needed one</td>
<td>4.18</td>
<td>4.15</td>
<td>4.18</td>
<td>4.22</td>
</tr>
<tr>
<td>How quickly nurses came when you called for them</td>
<td>4.17</td>
<td>4.10</td>
<td>4.17</td>
<td>4.23</td>
</tr>
<tr>
<td>Overall, how would you rate the nursing care you received in this ward (1-item scale)</td>
<td>6.22</td>
<td>6.20</td>
<td>6.05</td>
<td>6.33</td>
</tr>
</tbody>
</table>

*P* > .05 for all items among the groups.
reports the total satisfaction score for all patients and total satisfaction for medical, surgical, and gynecological patients with the F statistics and P value.

Testing for differences in satisfaction between age groups and educational level revealed no significant differences (P > .05) among these groups of patients. However, female patients were more satisfied than males as the t test revealed significant difference (P < .05) between males and females in the total satisfaction score and in the 1-item scale of overall satisfaction. Furthermore, there was significant correlation (0.54, P < .01) between total patients’ scores in the 19-item satisfaction scale and the 1-item scale on overall patient satisfaction.

**Discussion**

The purpose of this study was to assess patient satisfaction with nursing care at KAMC-R at 1 of the main tertiary hospitals in the Kingdom of Saudi Arabia. Most previous satisfaction studies collected data from patients after discharge, relying on patients’ retrospective experience of the care they received.\textsuperscript{16} Data in this study were collected from patients during their stay in the hospital and therefore report current patient satisfaction with nursing care. The issue of low response rates related to postal questionnaires was avoided in this study by having a research assistant collect data concurrently during the inpatient stay.

This study demonstrated a high level of satisfaction by patients (mean, 90.67%). This is in contrast with low satisfaction reported in other Saudi hospitals.\textsuperscript{23} The high level of satisfaction could be due to the quality of nursing services provided. KAMC-R was opened in May 1983. The facility has been approved by The Joint Commission international standards with excellent performance. The nursing services department incorporates an international workforce of almost 4000 personnel comprised of professional nurses, paranursing, auxiliary, and support staff.\textsuperscript{29} Organizational culture including recruitment standards, financial benefits, and the retention of a qualified and committed nursing workforce at KAMC-R may have led to high patient satisfaction, which would improve hospital care safety and quality.\textsuperscript{2}

The high satisfaction in this study is consistent with other studies that also reported high satisfaction scores.\textsuperscript{10,19,30} Ervin\textsuperscript{3} pointed out that studies of patient satisfaction with nursing care have demonstrated high levels of satisfaction in general but still need to be linked to patient outcomes such as health status. In this study, data about patient outcomes were not collected and should be the focus of a future study to explore the relationship of satisfaction and health status of patients. High satisfaction with nursing care may imply that the care has been individualized and that the nursing assessment and care were effective during hospitalization.\textsuperscript{5}

Several studies found that patients treated on surgical wards reported higher satisfaction than patients treated on medical wards.\textsuperscript{10,19,31} In the current study, there was no significant difference in satisfaction scores between patients treated on surgical wards and those on medical wards. Medical patients usually have several chronic health problems that negatively affect their level of satisfaction, whereas most surgical patients are treated for more acute health problems that have tangible outcomes on their health status.\textsuperscript{32} This issue needs to be explored further as it is most likely the health status and patient’s treatment outcome that have the greater effect on their satisfaction rather than the ward where they were treated.\textsuperscript{6}

Patients’ gender and level of education have been reported to affect level of patient satisfaction in previous studies.\textsuperscript{19,33,34} In this study, female patients were significantly more satisfied with the nursing care than males. This finding is inconsistent with previous research where male patients tended to have a positive experience of nursing care more often than did female patients.\textsuperscript{8,35,36} The majority of nurses at KAMC-R are females, and in medical-surgical wards, female patients are usually cared for by female nurses, whereas male patients are cared for by male and female nurses. The gender of the individual nurse related to patient satisfaction is not reported in this study.

The level of education in this study was not found to have significant effect on patient satisfaction as

<table>
<thead>
<tr>
<th>Table 2. Total Satisfaction (%) and SD for All Patients According to Area of Admission and F Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient’s Category</td>
</tr>
<tr>
<td>-------------------</td>
</tr>
<tr>
<td>Medical</td>
</tr>
<tr>
<td>Surgical</td>
</tr>
<tr>
<td>Obstetrics and gynecology</td>
</tr>
<tr>
<td>All patients (total)</td>
</tr>
</tbody>
</table>
there was no significant difference among patients with different levels of education. In other studies, patients with higher levels of education were significantly less satisfied with nursing care than patients with lower educational level.\(^{37-39}\) It has been suggested that patients with high level of education have higher expectations of the standard of care and therefore demand greater individual alignment of their care.\(^{10,11}\)

The significant correlation between total patients' scores in the 19-item satisfaction scale and the 1-item scale on overall patient satisfaction (0.54, \(P < .01\)) reflects the internal consistency of the satisfaction scale and would support the use of the 1-item scale as a standalone scale of satisfaction. Overall, Cronbach's \(\alpha\) for the scale was .92, which is considered to be reliable in measuring patient satisfaction and consistent with previously reported reliability coefficients for the same scale.

**Limitations**

Relationship of patient satisfaction with health status was not examined in this study. Such data would have been valuable in showing the effect of health status on satisfaction as a patient outcome. Satisfaction in this study was examined only during hospitalization using cross-sectional design; it would be worth knowing how patient satisfaction changed after discharge. In addition, the convenience sampling used in the study limits its external validity. Also, cultural norms may influence the outcomes when conducted in 1 site in the Middle East.

**Conclusions**

Level of patient satisfaction with nursing care was high (90.67%) at KAMC-R. Age, level of education, and place of admission were not found to have significant effect of patient satisfaction with care. Female patients were significantly more satisfied than males. The highest 5 items of satisfaction were the amount of privacy nurses gave you, nurses’ awareness of your needs, how willing nurses were to respond to your requests, nurses’ treatment of you as an individual, and how nurses listened to your worries and concerns. The lowest 5 items of satisfaction were how often nurses checked to see if you were okay, the amount of information nurses gave you about your condition and treatment, the way nurses made you feel at home, they are always being a nurse around if you needed one, and how quickly nurses came when you called for them. Result of the study could be used to improve specific aspects of nursing care as it highlights main areas in which patients were less satisfied. Results can be further used to enhance decisions at an executive level in nursing management, in planning and maintaining quality care nursing services. The retention of a qualified and committed nursing workforce should lead to high patient satisfaction with care and improve hospital care safety and quality in general. Further research to link patient satisfaction with their health status and outcomes is recommended across a variety of care settings and cultures.

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**References**
