Patient Satisfaction with Nursing Care: A Descriptive Study Using Interaction Model of Client Health Behavior

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Abstract Patient satisfaction has been viewed as a valid outcome measure of a healthcare delivery system. Satisfaction evaluations reflect the expectations from the patients’ point of view and compare with the realities of the care received. Hence, the purpose of this study was to assess patients’ satisfaction with nursing care using Patient Satisfaction with Nursing Care Scale (PSNCS) which was developed based on Cox’s Interaction Model of Client Health Behavior. A convenience sampling was used in recruiting the sample of this study (n=100). The findings of this revealed that the patients rated their satisfaction of nursing care as being at moderate level of satisfaction. The majority of the patients were highly satisfied with the affective support showed by nurses which comprise of ‘respect’, ‘smile’ and ‘caring’. However, the patients were least satisfied with the aspect on ‘decisional control’ given to them such as ‘making own decision towards care’ and ‘family involvement with care’. There were no significant differences of patients’ satisfaction between age, gender and marital status. Interestingly, this study found a significant difference of patients’ satisfaction and ethnicity. Hence, determining the level of patient satisfaction and the contributing factors can assist nurses in improving nursing care.

Keywords Patient Satisfaction, Nursing Care, Interaction Model of Client Health Behavior

1. Introduction

Patient satisfaction has gained the attention from global scholars. Researches in the developed countries such as United States (US), United Kingdom (UK) and Canada have pointed out the importance of patients’ satisfaction as the core quality indicator, particularly in the area of nursing care. Nurses are the frontline people that patients most likely meet up with, spend the highest amount of time with and rely upon for recovery during their hospitalization. Nursing care plays a prominent role in determining the overall satisfaction of patients’ hospitalization experience[2, 3, 4]. Assessing patient satisfaction with nursing care is important in evaluating whether patients’ needs are fulfilled and subsequently facilitating in the planning as well as implementing appropriate nursing interventions for patients. Determining factors contribute most to patient satisfaction can further assist nurses in improving the quality of nursing care. Hence, patient satisfaction with nursing care is an imperative determinant of quality of care particularly in the clinical/healthcare facility settings[3].

The American Nurses Association (2000) defines ‘patient satisfaction with nursing care’ as patients’ opinion of care received from nursing staffs during their hospitalisation[5]. On the other hand, patients’ satisfaction is also referred as an expression of patient’s overall judgment on the quality of care particularly in the aspect of interpersonal process[6]. In the marketing perspectives, patient satisfaction was considered as the intermediary between patients’ perspectives of service quality and future intention of re-using or recommending the healthcare service[7]. Interestingly, the organization perspective viewed patient satisfaction as the goal of health care delivery[8].

The subject on patient satisfaction has drawn much attention for research particularly in the specialized areas such as emergency departments[9,10] coronary care units [11], orthopaedic wards[5] and psychiatric units[13]. In contrast, patient satisfaction among the patients admitted to the medical wards of government hospital settings, which are usually comprises the highest density of in-patient population of any countries are neglected. Up-to-date, few patient satisfaction studies have been conducted specifically in the medical wards[15, 17, 22]. Patients’ characteristics such as reasons for hospitalization may influence the findings of patient satisfaction and also different units may also have a different mix of patients. In view of the wide coverage of population in the medical wards, the evaluations on patient satisfaction would contribute to the knowledge of strategies in nursing care improvement.

Hence, the purpose of this study was to assess patients’ satisfaction with nursing care in the medical wards of a public hospital in the Federal Territory of Kuala Lumpur, Malaysia.
1.1. Theoretical Framework

The theoretical framework used to guide this study is Interaction Model of Client Health Behavior[1]. The Interaction Model of Client Health Behavior consists of three major elements which are: client singularity, client-professional interaction and health outcome[1].

Client singularity is meant by the background variables of different patients which consist of background variables which comprise of demographic characteristics, social influence, previous health care experience and environmental resources[1].

Age, gender and educational level are examples of demographic characteristics. Marital status is an example of social influence. Previous hospitalization experience and length of hospitalization are examples of previous healthcare experience. Health insurance is an example of environmental resources[1].

As proposed in Interaction Model of Client Health Behavior, client-professional interaction has four domains which will influence patients’ health outcomes. Health outcome in this study is referring to ‘patients’ satisfaction with care’[1].

The first domain of client-professional interaction is affective support which refers to attending the emotion needs of the clients[1]. The second domain is health information which refers to the knowledge that assists patients to further understand about their health conditions which will impact their lifestyle and alternatives in managing their health conditions[4]. The third domain is decision control which refers to patient’s expectations of participating in decision-making about their healthcare[1]. The fourth domain is professional-technical competencies which refer to the skills that are used by nurses (i.e., checking on vital signs, initiating an intravenous infusion) to meet patients’ health needs[1].

Hence, the conceptualization of patient satisfaction of four domains of client-professional interaction proposed by Interaction Model of Client Health Behavior[1] was used in this study. The satisfaction of medical wards adult patients are affected by affective support, health information, decisional control and professional-technical competencies[1].

By using this model, the findings of this study would be able to highlight the specific domains of client-professional interaction that need to be further developed and enhanced among the nurses. This would also assist the hospitals in further developing appropriate training for nurses.

1.2. Literature Reviews

Generally, past studies on patients’ satisfaction with nursing care revealed moderate level of satisfaction. Patients are particularly concern with the contribution of affective support such as nurses being caring, supportive, respectful, honest, empathy, patient, attentive and responsiveness towards their satisfaction[12, 13, 14, 15]. In addition, a study conducted in Taiwan and Jordan revealed that concern for privacy and involvement of family and friends in the patients’ care have also been found to be an important factor in improving patient satisfaction with nursing care[16, 17]. Furthermore, patients are satisfied with the professional-technical competencies among the nurses[14, 19]. In contrast, literature showed that patients reported least satisfaction towards lack of decisional control towards their health management[19, 20]. A study conducted in Turkey supported this finding through its finding on positive satisfaction ratings on the aspect of the degree of freedom in the ward[22]. In a separate study in Finland, patient satisfaction was examined in the perspectives of individualized care[26]. The study found that patient satisfaction was positively linked with higher level of individualized care[26].

In relations to influence of demographic determinants towards patients satisfaction, most of the past studies highlighted as age increased, the level of patient satisfaction was higher[14, 19]. In relations to comparing gender with level of satisfaction with nursing care, previous studies revealed that female patients were more satisfied with the nursing care provided than male patients[18, 21]. In regards to level of education, previous studies showed patients with higher level of education experienced less satisfaction with nursing service[12, 18, 21]. In general, no association was found between marital status and patient satisfaction with nursing care[14, 21]. Similarly, past studies also revealed no association between past healthcare experience and patient satisfaction[5, 19]. Interestingly, a recent study found that patients who were hospitalised for a longer period (more than 22 days) are more satisfied that patients who had shorter stay in hospital (i.e., 10 days or less)[24].

2. Methodology

2.1. The Participants

The study used a descriptive research design to determine medical wards adult patients’ satisfaction in a public hospital in the Federal Territory of Kuala Lumpur, Malaysia. The inclusion criteria for the study were: patients aged 18 years or older; patients who were discharging from the medical ward; patient who have spent two nights or more in the medical ward; able to speak Malay or English language; stable vital signs and mentally alert.

A convenient sampling method was applied in this study. Power analysis was used to determine the sample size; with an alpha of 0.05 power at 0.80 and an estimated medium effect size 0.4, the required sample size for the study was 100. 15 subjects were added in this sample size to cater for 10% of attrition and this make up to the total sample size for this study was 115. However, only 100 participants were responded in this study with a response rate of 87%.

2.2. Instrument

The instrument of this study was a questionnaire called...
Patient Satisfaction with Nursing Care Scale (PSNCS). PSNCS consists of two sections. The first section of the questionnaire included demographic information which includes age, gender, educational level, marital status, employment status, ethnicity, previous hospitalization, length of hospitalization and medical insurance coverage.

The second section consists of the questionnaire related to the patient satisfaction with nursing care. The questionnaire in this section was developed based on Interaction Model of Client Health Behavior which consists of 20 items on a 4-point Likert scale format (1= strongly disagree, 2= disagree, 3= agree, 4= strongly agree). The questionnaire was divided into four domains based on Interaction Model of Client Health Behavior: health information, affective support, decisional control and professional-technical competencies[1]. The questionnaire was developed in English language and subsequently being translated into Malay language.

In regards to content validity analysis, eight panels of experts from the public hospital were engaged to review the validity of the questionnaire. The panels of experts noted that the questionnaire was appropriately worded and translated.

In addition, a pilot study had also been conducted using 10 subjects (calculated based on 10% of the total number of subjects) to determine the reliability of the questionnaire. The Cronbach’s alpha coefficient of the questionnaire was .85. A coefficient alpha of at least .70 and preferably above are considered to be internally consistent[25].

### 2.3. Data Collection Procedure

Prior commencing the study, the researchers had sought the approval from the Medical Research and Ethics Committee (MREC), Malaysia and the International Medical University (IMU) Research and Ethics Committee. Both committees had approved the study. Furthermore, informed consent was obtained from all participants. The questionnaire was administered directly to the participants through face-to-face. The researcher also informed the participants that names would not be revealed in any manner for their confidentiality and data collected from the study was analysed collectively.

### 2.4. Data Analysis

Data were analysed using Predictive Analytics SoftWare (PASW) version 19.0. Descriptive statistics: mean (M) and standard deviation (SD) were used to summarise the demographics variables and determining the patients’ satisfaction with nursing care. T-test statistical procedures were employed to test whether there is any significant difference in patient satisfaction for each of the demographic variables.

### 3. Results

#### 3.1. Demographic Characteristics

The respondents were aged between 18 and 81 years old ($M=49.4; SD=17.2$). Majority of the respondents aged below 60 years old (67%) while 33% aged 60 years and above. The cut-off age 60 years old was used based on the definition from the United Nation[23].

In regards to gender distribution, the distribution was equal whereby 50% of the respondents were male and 50% were female.

Majority of the respondents were Malay (62%) while the remaining 38% were non-Malays which comprise of Indian respondents (17%), Chinese (15%), Bangladesh (2%), Eurasian (1%), Punjabi (1%), Portuguese (1%) as well as Nepal (1%).

In regards with level of education, 79% of the respondents have educational level at below pre-university level. 21% have educational level at pre-university level and above.

Majority of the patients were married (66%) and 34% of patients were not married. In terms of employment status, 35% of the respondents worked in the private sector. Only 8% of the respondents worked with the public sector. It was also found that 29% of the respondents have retired, 21% were unemployed, 3% were self-employed and 4% were students.

In regards to previous hospitalization experience, 72% of the respondents who participated in this study had previous hospital admissions while 28% of them were experiencing first time admission to a hospital.

Majority of the respondents (76%) do not have any insurance coverage. Only 24% of them have insurance coverage.

In the context of length of hospitalization, respondents who participated in this study have stayed between 3 and 28 days. 88% of respondents have stayed in the hospital for seven days or less while 12% have stayed in the hospital seven days and above. The mean of hospitalization duration was 4.85 ($SD=3.68$).

#### 3.2. Patient Satisfaction with Nursing Care

Patient satisfaction with nursing care, as measured using the PSNCS, is seen in Table 1. Patients in the medical wards of the public hospital were on the whole satisfied with the nursing care they received ($M=3.13; SD=0.68$). This indicates that the level of patients’ satisfaction was at a moderate level.

According to Table 1, the participants reported that the four highest mean ratings towards their satisfaction were ‘nurses treat me with respect’ ($M=3.38; SD=0.62$), followed by ‘nurses smile whenever they approach me’ ($M=3.37; SD=0.66$), ‘I feel safe when receiving nursing care from nurses’ ($M=3.25; SD=0.66$) and ‘nurses are caring’ ($M=3.25; SD=0.64$).

On the other hand, items with the four lowest mean ratings were ‘nurses involve my family in hospital care’ ($M=2.73; SD=0.82$), followed by ‘I can make my own decision when being cared by nurses’ ($M=2.95; SD=0.67$), ‘I receive useful information during discharge planning from nurses’ ($M=2.96; SD=0.76$) and ‘I receive useful
information about my condition from nurses’ \((M=2.99; SD=0.79)\).

### Table 1. Factors contributing to patient satisfaction sorted by highest mean rating \((n=100)\)

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Factors contributing to patient satisfaction</th>
<th>Mean ((M))</th>
<th>Standard Deviation ((SD))</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Nurses treat me with respect</td>
<td>3.38</td>
<td>0.62</td>
</tr>
<tr>
<td>10</td>
<td>Nurses smile whenever they approach me</td>
<td>3.37</td>
<td>0.66</td>
</tr>
<tr>
<td>19</td>
<td>I feel safe when receiving nursing care from nurses</td>
<td>3.25</td>
<td>0.66</td>
</tr>
<tr>
<td>2</td>
<td>Nurses are caring</td>
<td>3.25</td>
<td>0.64</td>
</tr>
<tr>
<td>1</td>
<td>Nurses can answer my questions correctly</td>
<td>3.24</td>
<td>0.50</td>
</tr>
<tr>
<td>6</td>
<td>Nurses are skillful in performing nursing procedures</td>
<td>3.24</td>
<td>0.59</td>
</tr>
<tr>
<td>12</td>
<td>Nurses ask my permission before performing nursing procedures</td>
<td>3.23</td>
<td>0.65</td>
</tr>
<tr>
<td>18</td>
<td>I have been given privacy from nurses</td>
<td>3.22</td>
<td>0.68</td>
</tr>
<tr>
<td>3</td>
<td>Nurses deliver care competently</td>
<td>3.18</td>
<td>0.63</td>
</tr>
<tr>
<td>20</td>
<td>Nurses explain nursing procedure clearly before performing it</td>
<td>3.15</td>
<td>0.66</td>
</tr>
<tr>
<td>13</td>
<td>Nurses are professional when rendering nursing services</td>
<td>3.11</td>
<td>0.68</td>
</tr>
<tr>
<td>9</td>
<td>Nurses render nursing services without delay</td>
<td>3.10</td>
<td>0.72</td>
</tr>
<tr>
<td>7</td>
<td>Nurses provide me with important information during hospitalisation</td>
<td>3.09</td>
<td>0.73</td>
</tr>
<tr>
<td>14</td>
<td>Nurses give encouragement to me</td>
<td>3.06</td>
<td>0.75</td>
</tr>
<tr>
<td>17</td>
<td>Nurses use physical touch in supporting me</td>
<td>3.06</td>
<td>0.80</td>
</tr>
<tr>
<td>4</td>
<td>Nurses involve me in hospital care</td>
<td>3.02</td>
<td>0.60</td>
</tr>
<tr>
<td>11</td>
<td>I receive useful information about my condition from nurses</td>
<td>2.99</td>
<td>0.79</td>
</tr>
<tr>
<td>15</td>
<td>I receive useful information during discharge planning from nurses</td>
<td>2.96</td>
<td>0.76</td>
</tr>
<tr>
<td>16</td>
<td>I can make my own decision when being cared by nurses</td>
<td>2.95</td>
<td>0.67</td>
</tr>
<tr>
<td>8</td>
<td>Nurses involve my family in hospital care</td>
<td>2.73</td>
<td>0.82</td>
</tr>
</tbody>
</table>

Note: *Scores ranged from 1 (strongly disagree) to 4 (strongly agree)

In addition, the data were computed collectively to determine the domain that contributed to patients’ satisfaction. According to Figure 2, affective support \((M=3.22; SD=0.69)\) was found to be the domain that contribute highest to the patients’ satisfaction. In contrast, the domain of decisional control \((M=3.03; SD=0.68)\) and health information \((M=3.09; SD=0.68)\) were found to be contributed the least to patients’ satisfaction.

As conclusion, the predominant factors that contributed in patient satisfaction among the participants appeared to be primarily on the aspects of ‘respect’, ‘smile’ and ‘caring’ which belong to the ‘affective support’ domain according to Interaction Model of Client Health Behavior[1].

Conversely, ‘decisional control’ and ‘health information’ domain of Interaction Model of Client Health Behavior appeared to be the least in contributing to patients’ satisfaction.

### Table 2. Domains contributing to patient satisfaction sorted by highest mean rating \((n=100)\)

<table>
<thead>
<tr>
<th>Domains contributing to patient satisfaction</th>
<th>Mean ((M))</th>
<th>Standard Deviation ((SD))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affective support</td>
<td>3.22</td>
<td>0.69</td>
</tr>
<tr>
<td>Professional technical competencies</td>
<td>3.18</td>
<td>0.65</td>
</tr>
<tr>
<td>Health information</td>
<td>3.09</td>
<td>0.69</td>
</tr>
<tr>
<td>Decisional control</td>
<td>3.03</td>
<td>0.68</td>
</tr>
</tbody>
</table>

Note: *Scores ranged from 1 (strongly disagree) to 4 (strongly agree)

### 3.3. Test of Significance of Differences between Patient Satisfaction and Demographic Characteristics (Age, Gender, Ethnicity and Marital Status)

T-tests were used to determine whether there were any significance differences of patients’ satisfaction with demographic characteristics such as age, gender, ethnicity and marital status.

Based on table 3, results of analysis suggested that there were no significant differences in patient’s satisfaction between patients who aged 60 years and above \((M=2.12; SD=0.60)\) and patients who aged less than 60 years \((M=2.19; SD=0.53)\), \(t=3.687, p>.05\); male \((M=62, SD=10.79)\) and female \((M=63.14; SD=7.51)\), \(t=-2.12, p>.05\); as well as married \((M=63.66; SD=7.65)\) and not married \((M=60.82; SD=11.32)\), \(t=1.499, p>.05\).

### Table 3. T-tests between patients’ satisfaction and demographic characteristics \((n=100)\)

<table>
<thead>
<tr>
<th>Demographic characteristics</th>
<th>(t)-value</th>
<th>(p)-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>-3.687</td>
<td>.000</td>
</tr>
<tr>
<td>Gender</td>
<td>-3.602</td>
<td>.000</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>3.687</td>
<td>.000</td>
</tr>
<tr>
<td>Marital status</td>
<td>1.499</td>
<td>.137</td>
</tr>
</tbody>
</table>

Note: level of significant confidence 0.05 (2-tailed)

In converse, according to Table 3, a \(t\)-test analysis revealed significant difference in patient’s satisfaction between Malay ethnicity \((M=65.05; SD=8.41)\) and non-Malay ethnicity \((M=58.38; SD=9.26)\), \(t=3.687, p<.05\).

### 4. Discussion

Generally, patients in the medical wards of the public hospital were moderately satisfied with the nursing care they received \((M=3.13; SD=0.68)\). The findings of the study were consistent with past studies, such as a recent study which revealed 82.7% of patients rated their satisfaction at a moderate level[5].

On the other hand, this study revealed affective support such as respectful and caring behaviors as the highest contributors towards patients’ satisfaction. The finding of this study was found to be in consistent with the past studies whereby patients reported satisfaction with care pertaining to being treated as a specific individual and given personal, patient-focused care to meet their unique needs[12, 14].
In regards to the lowest satisfaction, this study revealed that patients expressed lack of autonomy in relations to managing their health care. This finding was also supporting previous studies which revealed that patients were less satisfied when nurses did not recognize their opinions during their hospital care[19, 20, 22]. Hence, nurses need to be more sensitive with patients’ decisional control or sense of autonomy when providing care. In this context, allowing some degree of freedom for patients in decision-making and choices of care would improve patient satisfaction[22]. Appropriate measures need to be instituted to further improve the quality of nursing care for the patients.

Interestingly, this study found a significant difference of patients’ satisfaction and ethnicity. The differences that exist could be due to the differences in terms of cultural differences as well as language barriers. Limited literature has explored in the effect of transcultural nursing towards patients’ satisfaction.

In the context of other demographic characteristics, the findings of this study revealed that there were no significant differences of patient satisfaction between age, gender and marital status. The finding of this study was seemed to contrasting with previous studies which demonstrated significant association between patient satisfaction and age[14, 19]. In relation to gender and marital status, this study was not able to conclude any difference of patient satisfaction. Hence, the findings were not consistent with previous studies[18,21].

4.1. Limitations

The findings of this study may not be generalizable in view of the use of convenience sampling method[25]. There was a potential non-response bias and the findings may not be generalized. Another limitation of the study was that the sample of the study was only limited to patients in the Federal Territory of Kuala Lumpur region. Therefore, a replication of the study is recommended in order to justify statistical connection.

5. Conclusions

As conclusion, this study found that the medical wards patients in this study reported moderate level of satisfaction with the nursing care they received. Affective support was found to be contributed highest towards their satisfaction and followed by professional-technical competencies. Decisional control appeared to be an area requires further improvement in order to enhance patients’ satisfaction particularly in the medical wards setting of this hospital.

There were no statistical differences were found on patients’ satisfaction with demographic characteristics (age, gender and marital status). However, significant different of patients’ satisfaction was found in terms of ethnicity.

The aspect of patients’ satisfaction is indeed a very essential determinant of nursing service quality. Nursing administrators and nurses can utilize the findings to recognize the strengths and weaknesses of nursing services and adopt necessary measures in enhancing quality of nursing care in order to increase patient satisfaction.

Therefore, several recommendations for further study are forthcoming from this study. Replication of the study in a different location with a larger sample could provide reliability as well as validity to the findings of this study. Furthermore, recommendation for further research would also to include the use of qualitative approach to explore the patients’ perception of satisfaction and meaning of ‘quality care’.

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REFERENCES


