MEASURING INPATIENT SATISFACTION FOR TREATMENT PROCESS AT THE NATIONAL HEART INSTITUTE AT BACHMAI HOSPITAL IN VIETNAM BY TOOLS OF VICTORIAN PATIENT SATISFACTION MONITOR

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ABSTRACT

Background: A survey was conducted for inpatient satisfaction about medical examination and treatment process in Vietnam National Heart Institute at Bachmai Hospital using the Tools of Victorian Patient Satisfaction Monitor (VPSM) 2012.

Methods: The study obtained feedback from adult inpatients over a period of one month, during a middle of January to middle of February 2014. We were finished interviewed immediately before inpatients leave hospital, the attendant, a modified version of the PS by the VPSM with 6 items (25 score) was used in the hospital.

Results: In total, 325 inpatients were interviewed and completed the survey. Levels of inpatient satisfaction about medical examination and treatment process were influenced by the VPSM with 6 items (25 score) and Cronbach alpha coefficient’s 0.928, Including the Access and Admission, General Patient information, Treatment and Related information, Complaints Management, Physical Environment, Discharge and Follow. Overall, the level of highly inpatient satisfaction in the hospital was explained almost 74.621% what could be archived. There is no difference in the assessment of the inpatient satisfaction for medical examination and treatment process between level of education; there is difference in the assessment of the inpatient satisfaction for medical examination and treatment process under the Gender, and the monthly income level with the model of research.

Conclusion: The levels of inpatient satisfaction about medical examination and treatment process is influenced by the VPSM with 6 items (25 score). The VPSM provides feedback on
the PS for medical examination and treatment process of a public hospital experience from the adult inpatient's perspective.

**Keywords:** Medical examination and treatment process, inpatient, patient satisfaction, VPSM

### 1.0 Introduction

#### 1.1. Introduction of the modeled hospital

Bachmai Hospital is the significant Public general hospital in Vietnam: Bachmai Hospital is one of the biggest hospital in Vietnam. Although Vietnam is now a developing country [1], [2], Bachmai Hospital has combined advanced technology system and expertise resource in healthcare and medical practice education on the top in Vietnam. Bachmai Hospital is a multi-field medical facility in Hanoi and is considered on of the largest in Vietnam. The hospital was established in 1911.

Vietnam National Heart Institute is one big unit belong to Bachmai Hospital, from an unit of Bachmai hospital with only 50 sickbeds, after 25 years, the institute has become one of top hospitals in the north in particular and in Vietnam in general, with application of advanced and low-cost medical techniques, such as transcatheter aortic valve implantation or percutaneous coronary intervention, that have saved thousands of patients suffering from fatal heart diseases in the northern region of Vietnam. Currently, Vietnam National Heart Institute also developed completely with over 300 staffs (including 96 doctors with many highly of professional and over 205 staffs are nursings as well as other staffs).

#### 1.2. Introduction of the Victorian Patient Satisfaction Monitor

Victorian Patient Satisfaction Monitor (VPSM) is a study that asks patients to tell how they felt about their stay in the hospital [3], [4]. The continuous monitor of patient satisfaction has been required by Victorian Government as a commitment to improve the public healthcare system. The results are crucial for quality managers to direct the improvement and change in healthcare service.

As VPSM proved great impact on the improvement of healthcare system, we applied that model to measure inpatient satisfaction in Vietnam National Heart Institute at Bachmai Hospital - a public hospital in Hanoi, Vietnam. After analysis, we proposed some suggestions to improve the quality of medical examination and treatment process.
2.0 Materials and Methods

2.1. Study design

The cross-sectional designs, analysis research. Patients who were underwent medical examined and treatment in Vietnam National Heart Institute at Bachmai General Hospital.

2.2. Sample

Adult - Inpatients in Vietnam National Heart Institute at Bachmai Hospital were chosen for the survey.

Selection of study set and sampling of patients:

\[ n = \frac{N \times Z_{\alpha/2}^2 \times p \times q}{\epsilon^2 \times (N - 1) + Z_{\alpha/2}^2 \times p \times q} \]

Where \( N \) is the population size, \( p = 1 - q \) represents the yes/no categories, \( Z_{\alpha/2} \) is CDF of normal distribution and finally \( \epsilon \) is the error term. Since we have \( p = 0.5 \), \( Z_{\alpha/2} = 1.96 \) and \( \epsilon = 0.05 \). The results confirm that the number of questionnaire is sufficient for this survey [5].

For the research in Vietnam National Heart Institute at Bachmai hospital, where considering a population of over 3,000 inpatients visit per month to Vietnam National Heart Institute at Bachmai hospital) with selection value of \( p = 0.5 \), a level of confidence's 95% and \( \epsilon = 0.05 \) confidence interval, the minimal sample was calculated as 170. Therefore, a minimum sample size of 170 would be representative to the population and the results of the present research sample can be safely generalized to the population. In the current research, a sample of 325 individuals was collected.

2.3. Study period

The study has been ongoing since December 2013. Baseline information was collected at the middle of January to middle of February 2014. The study has been continued & widened to many unit for until now.

2.4. Tools of Victorian patient satisfaction monitor

Measuring service quality for medical examination by Tools of VPSM (2012) contains six dimensions with 25 items: Each item can be scored from 1 to 5. This six aspects are: Access and Admission with 5 items, General Patient Information with 4 items, Treatment and Related Information with 6 items, Complaints Management with 2 items, Physical Environment with 5 items, Discharge and Follow-up with 3 items (Figure 1) [3], [4].

The scores of 25 surveyed items are used to calculate the Overall Care Index (OCI). The OCI acts as the global indicator for the patient's hospital experience.
2.4.1. Interval Measurement for Service Quality and Patient Satisfaction

This measurement has the power to measure the distance between any two points on the scale. Respondents are to provide answers on their expectations and perceptions based on the 5 points Likert scale. Number 1 implies SD - Strongly Disagree, 2 implies D - Disagree, 3 implies N – Neither disagree or agree, 4 implies A – Agree, 5 implies SA – Strongly agree.

Variables for research:

+ Independent Variables (IV) and Dependent Variables (DV):
  
  - Patient Satisfaction (PS) in Service quality (SQ) is dependent variables (DV).
  
  - 6 dimensions of Patient Satisfactions are independent variables (IV) of Patient satisfaction (DV). Measuring Patient satisfaction by 6 dimensions are: (1) Access and Admission (DVa: 5 variables), (2) General Patient information (DVb: 4 variables), (3) Treatment and Related information (DVc: 6 variables), (4) Complaints Management (DVd: 2 variables), (5) Physical Environment (DVe: 5 variables), and (6) Discharge and Follow-up (DVF: 3 variables).

+ Demographic Variables (DM):
  
  - DM1: Gender (0 = male, 1 = female)
  
  - DM2: Level of Education (0 = undergraduate, 1 = Degree, 2 = masters, 3 = doctorate)
  
  - DM3: Income Level: Monthly income (0 = under 200 USD, 1=201 to 500 USD, 2 = 501 to 1000 USD, 3 = 1001 to 2000 USD, 4 = above 2000 USD).

2.4.2. Research Hypotheses

For the purpose of this research, we argue the VPSM indexes are reliable and all six dimensions of inpatient satisfaction in SQ by the VPSM instrument are significant in the setting of health care.

  - H1a (Hypothesis 1a): There is a relationship between "Access and Admission” and “Inpatient satisfaction of medical examination and treatment process”.
  
  - H1b (Hypothesis 1b): There is a relationship between “General Patient information” and “Inpatient satisfaction of medical examination and treatment process”.
  
  - H1c (Hypothesis 1c): There is a relationship between "Treatment and Related information" and “Inpatient satisfaction of medical examination and treatment process”.
  
  - H1d (Hypothesis 1d): There is a relationship between “Complaints Management” and “Inpatient satisfaction of medical examination and treatment process”.
  
  - H1e (Hypothesis 1e): There is a relationship between "Physical Environment” and “Inpatient satisfaction of medical examination and treatment process”.
  
  - H1f (Hypothesis 1f): There is a relationship between "Discharge and Follow-up” and “Inpatient satisfaction of medical examination and treatment process”.

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From the analysis, some suggestions were proposed to improve the quality of healthcare, ensure inpatient satisfaction for Vietnam National Heart Institute at Bach Mai Hospital.

**Figure 1.** VPSM indices and items (Source: VPSM Annual Report 2012-12) [3], [4].

**Analysis of variance (ANOVA):**

One-way ANOVA was performed to find a difference in the quality assessment of healthcare services according to demographic variables (gender, level of education, income level), with these assumptions:

(H3a): There is a difference in satisfaction levels between the gender groups

(H3b): There is a difference in satisfaction levels between the level of education groups

(H3c): There is a difference in satisfaction levels between the monthly income level

**2.5. Data analysis: Questionnaire administration**

Questionnaires were completed by inpatients at the Bachmai Hospital (n= 325) over a period of one month, during a period of January to February 2014. All Data analysis has been carried out with the Statistical Package for Social Sciences (IBM SPSS 21.0) [6], [7].
3.0 Results

From the samples characteristics in the Bachmai hospital: There is a 325 questionnaire were distributed are completed, frequency distribution of gender in the hospital are 132 males (40.6%) and 193 females (59.4%).

3.1. Reliability (Cornbach Alpha) and average of Patient Satisfaction Variables

Basically, inpatients satisfied to some extent. Variables DVA, DVB, DVC, DVd, DVe, and DVF were variable are the used in this study to measure inpatient satisfaction. These many items as in Figure 1 were measured againsts five point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree.

The reliability coefficient, Cronbach’s Alpha for these construct of the hospital with variables Dva, DVB, DVC, Dvd, DVe, and DVF are 0.889, 0.857, 0.902, 0.913, 0.877, and 0.827 respectively.

The mean of descriptive statistics for the inpatient satisfaction in the Public National Hospital are Dva = 3.9582 ± 0.61321, DVB = 4.0554 ± 0.64131, DVC = 4.0974 ± 0.56526; Dvd = 4.0831 ± 0.77331; DVe = 3.8683 ± 0.58215, DVf = 4.0964 ± 0.55704. The mean of of descriptive statistics for the Inpatient satisfaction (PS) = 4.0265 ± 0.53685, and Cronbach’s Alpha = 0928.

3.2. Exploratory Factor Analysis (EFA) for public hospital:

After performing EFA of 6 components (25 score), we have one component extracted with six factors (25 score) are drawn (DVA, DVB, DVC, Dvd, DVe, DVF) (Table 1).

3.3. Cronbach alpha of factor and Model for Bachmai Hospital

The reliability coefficient for patient satisfaction was calculated based on the Cronbach alpha coefficient for the six variables of patient satisfaction, as can be seen in Table 2: Cronbach alpha coefficient = 0.928 and all the variable in patient satisfaction have coefficients of Corrected item-Total Correlation are greater than 0.3 (Coefficients Corrected Item-Total Correlation of six constructs of patient satisfaction are DVA = 0.822, DVB = 0.814, DVC = 0.881, Dvd = 0.772, DVe = 0.760, and DVF = 0.739), satisfactory inspection, thereby ensuring conditions for inclusion in the next model analysis.

3.4. Adjusted research model and hypothesis for Public hospital

Through the above analysis results showed that 6 factors (components) of the original scale service quality after performing factor analysis, worth six factors distinguish drawn, which were six components are above (Table 2): DVA, DVB, DVC, Dvd, DVe, and DVF components. That ensures conditions for adjusted research model and hypothesis.
Thus, the multiple linear regression analysis (Pearson coefficient) of patient satisfaction about service quality of the results in the hospital (Table 4) as follow:

\[ Y = -1.024E-013 + 0.167*DV_a + 0.167*DV_b + 0.167*DV_c + 0.167*DV_d + 0.167*DV_e + 0.167*DV_f \]

**Table 1.** EFA of Inpatient Satisfaction (PS) of the Results in the BachMai hospital:

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial Eigenvalues</th>
<th>Extraction Sums of Squared Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>% of Variance</td>
</tr>
<tr>
<td>1</td>
<td>4.477</td>
<td>74.621</td>
</tr>
<tr>
<td>2</td>
<td>0.468</td>
<td>7.801</td>
</tr>
<tr>
<td>3</td>
<td>0.356</td>
<td>5.938</td>
</tr>
<tr>
<td>4</td>
<td>0.339</td>
<td>5.648</td>
</tr>
<tr>
<td>5</td>
<td>0.198</td>
<td>3.300</td>
</tr>
<tr>
<td>6</td>
<td>0.162</td>
<td>2.692</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.

**Table 1.2.** The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy | 0.900 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 1547.037 |
| Df | 15 |
| Sig. | 0.000 |

**Table 1.3.** Component Matrix

<table>
<thead>
<tr>
<th>Component</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>DV_a (Access and Admission)</td>
<td>0.885</td>
</tr>
<tr>
<td>DV_b (General Patient information)</td>
<td>0.873</td>
</tr>
<tr>
<td>DV_c (Treatment and Related information)</td>
<td>0.920</td>
</tr>
<tr>
<td>DV_d (Complaints Management)</td>
<td>0.844</td>
</tr>
<tr>
<td>DV_e (Physical Environment)</td>
<td>0.835</td>
</tr>
<tr>
<td>DV_f (Discharge and Follow-up)</td>
<td>0.821</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.

a. 1 components extracted.
Table 2. Cronbach Alpha of Patient Satisfaction (PS) of the Results in the Bachmai hospital:

<table>
<thead>
<tr>
<th>Items</th>
<th>Scale Mean if Item Deleted</th>
<th>Scale Variance if Item Deleted</th>
<th>Corrected Item-Totol Correlation</th>
<th>Cronbach's Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dva</td>
<td>20.2006</td>
<td>7.278</td>
<td>.822</td>
<td>.910</td>
</tr>
<tr>
<td>DVb</td>
<td>20.1034</td>
<td>7.169</td>
<td>.814</td>
<td>.911</td>
</tr>
<tr>
<td>DVc</td>
<td>20.0613</td>
<td>7.354</td>
<td>.881</td>
<td>.904</td>
</tr>
<tr>
<td>DVd</td>
<td>20.0757</td>
<td>6.689</td>
<td>.772</td>
<td>.922</td>
</tr>
<tr>
<td>Dve</td>
<td>20.2905</td>
<td>7.596</td>
<td>.760</td>
<td>.918</td>
</tr>
<tr>
<td>DVf</td>
<td>20.0624</td>
<td>7.769</td>
<td>.739</td>
<td>.921</td>
</tr>
</tbody>
</table>

Reliability statistics of PS (n=6) had Cronbach’s Alpha: 0.928

Table 3. Summary of Hypotheses Findings in the hospital:

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>(H1a): There is a relationship between “Access and Admission” (DVa) and “Inpatient satisfaction of medical examination and treatment process”.</td>
<td>Supported</td>
</tr>
<tr>
<td>(H1b): There is a relationship between “General patient information and Service Quality” (DVb) and “Inpatient satisfaction of medical examination and treatment process”.</td>
<td>Supported</td>
</tr>
<tr>
<td>(H1c): There is a relationship between “Related information” (DVc) and “Inpatient satisfaction of medical examination and treatment process”.</td>
<td>Supported</td>
</tr>
<tr>
<td>(H1d): There is a relationship between “Complaints management” factor (DVd) and “Inpatient satisfaction of medical examination and treatment process”.</td>
<td>Supported</td>
</tr>
<tr>
<td>(H1e): There is a relationship between “Physical Environment” (DVe) and “Inpatient satisfaction of medical examination and treatment process”.</td>
<td>Supported</td>
</tr>
<tr>
<td>(H1f): There is a relationship between “Discharge and Follow-up” (DVf) and “Inpatient satisfaction of medical examination and treatment process”.</td>
<td>Supported</td>
</tr>
</tbody>
</table>
3.5. **Multiple linear regression analysis (Pearson coefficient)**

Table 4. Linear regression of inpatient satisfaction about Service Quality of the Results in the hospital

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>-1.024E-013</td>
<td>0.000</td>
<td>0.000</td>
<td>1.000</td>
</tr>
<tr>
<td>Dva</td>
<td>0.167</td>
<td>0.000</td>
<td>0.191</td>
<td>113826499.594</td>
</tr>
<tr>
<td>DVb</td>
<td>0.167</td>
<td>0.000</td>
<td>0.199</td>
<td>119808646.819</td>
</tr>
<tr>
<td>DVc</td>
<td>0.167</td>
<td>0.000</td>
<td>0.175</td>
<td>87988098.281</td>
</tr>
<tr>
<td>DVd</td>
<td>0.167</td>
<td>0.000</td>
<td>0.242</td>
<td>155006536.351</td>
</tr>
<tr>
<td>DVe</td>
<td>0.167</td>
<td>0.000</td>
<td>0.181</td>
<td>127393166.654</td>
</tr>
<tr>
<td>DVf</td>
<td>0.167</td>
<td>0.000</td>
<td>0.172</td>
<td>123980163.866</td>
</tr>
</tbody>
</table>

a. Dependent Variable: PS

Thus, the initial research model through factor analysis results are adjusted in Table 4.

3.5. **Analysis of variance (ANOVA) for Public hospital**

The result of the analysis of variance ANOVA education indicated that $F$ value had no significant with Sig. = 0.707; Therefore, it had no significant difference in inpatient satisfaction between different education groups. Thus, (H3b) hypothesis is rejected.

The result of the analysis of variance ANOVA gender, ANOVA income level indicated that $F$ value had significant with Sig. = 0.000 (less than 0.05), and Sig. = 0.029 (less than 0.05), respectively. Therefore, it had significant difference in inpatient satisfaction between different genders, and income level groups. Thus, (H3a) and (H3c) hypothesis are accepted.

4.0 **Discussion**

4.1 **Reliability (Cronbach Alpha) of Variable**

Reliability of the instrument helped to provide consistency in the results and the Cronbach alpha was used to measure the reliability of the data. Overall Cronbach Alpha of public hospital data along with service quality construct provided values greater than 0.60, which is acceptable [8], [9].
4.2. Exploratory Factor Analysis (EFA)

Factor analysis discovered EFA with Patient Satisfaction Variable Group.

Continuing to performing Patient Satisfaction (dependent Variable) analysis of 6 factors as above (DVa, DVb, DVc, DVd, DVe, DVf), we have 1 elements are drawn and obtained results (Table 1): showed that the closer KMO measure to 1 indicate a sizeable sampling adequacy (KMO = 0.900 > 0.5 is acceptable), sig. = 0.000 (<0.05) in Bartlett's test of sphericity. Therefore, it is reasonably large values are needed for a good factor analysis. One factor (Only one component was extracted) is drawn with variance extracted is 74.621% (Table 1) [7], [8].

The meaning that the model explains almost 74.621% only of the variance. The rest (25.379%) could not be explained by the variables included in the analysis. As can be seen in Table 1 indicated that the rotation converged in 6 iterations that were consistent with the framework the researchers had formulated in the current research. Therefore, this model was proven to be the most appropriate measurement of functional quality for the current field of research. Thus, factor analysis has demonstrated that the model is constructed from 6 major constructs defined in Table 1 (Demonstrating Rotated Component Matrix and Constructs of the Research) [7], [8].

Figure 2. The histogram of regression standardized residuals

As can be seen in Table 1, the rotation converged in 6 iterations that were consistent with the framework the researchers had formulated in the current research. Thus, this model was proven to be the most appropriate measurement for inpatient satisfaction for the current field of research (Table 1).
4.3. Cronbach Alpha of factors and Adjusted research model for hospital

The reliability coefficient, inpatient satisfaction is brought to checks in the Cronbach alpha coefficient for the sixth construct of inpatient Satisfaction (PS). Test results (Table 2) were showed that Cronbach alpha coefficient = 0.932 and all the variable in PS have coefficients of Corrected item - Total Correlation is greater than 0.3 (Coefficients Corrected Item-Total Correlation of six construct of PS are DVA = 0.822; DVB = 0.814; DVC = 0.881; DVD = 0.772; DVe = 0.760 and DVF = 0.739), Thus, that ensures conditions for inclusion in the next model analysis.

4.4. Adjusted research model and hypothesis for public hospital

Through the above analysis results showed that 6 factors (components) of the original scale service quality after performing factor analysis, worth six factors distinguish drawn, which were the initial research model through factor analysis results are adjusted as follows (Table 3).

Summary of hypotheses fidings in public hospital by VPSM tool: The initial research model through factor analysis results are adjusted as showed in Table 3.

Infact, Australian is a deveploped country, the used of the VPSM tool with 6 items (25 scores) are common and many developed countries have used to the tool. That evidence confirmed that the VPSM is a strong tool in the measurement of service quality by levels of customer satisfaction [2], [3], [4]. Our research utilized the tool of VPSM in developing countries as Vietnam country, showing that the VPSM can become a strong tool when applying for the developing countries [1], [2]. We can use it in measuring service quality and medical examination in most countries include developed and developing countries [2].

4.5. Multiple linear regression analysis (Pearson coefficient)

The regression equation best satisfaction of quality of service as follow (Table 4):

\[ Y = -1.024E-013 + 0.167* \text{Access and Admission (DVA)} + 0.167* \text{General patient information and Service Quality (DVB)} + 0.167* \text{Related information (DVC)} + 0.167* \text{Complaints management (DVD)} + 0.167* \text{Physical Environment (DVe)} + 0.167* \text{Discharge and Follow-up (DVF)}. \]

Check items scatter plot between the normalized residuals (Standardized Residual) and standardized predicted values (Standardized predicted value) indicates residues randomly distributed, not form a specific shape. Thus, the linear contact and equal variance were met (Figure 2).

Check the histogram of regression standardized residuals [(Average mean = 3.90E-7 and standard deviation (Std. Dev.) = 1.594E-7 ie close to 1]; Therefore, it can be concluded that the normal distribution assumption was not violated (Figure 2).

Thus, the regression equation is presented as appropriate. The analysis indicated that Six factors with regression coefficient as the same = 0.167, the meaning that the influence of...
Factors are the same level; although the model had beta of Standardized Coefficients’s other different between variables (Table 4).

In the hospital, this is the most powerful factors with strongly influences the quality of medical examination as well as healthcare service and in turn customer satisfaction. This is also the score element of satisfaction with medical care, a hospital should be promoted, and especially doctors need qualified professionals, better skills and continuously improve in qualification [9].

The staff of the hospital departments should also enhance professional and service attitude better ensure service capacity associated with the customer's interests. These are also very important factors that hospital management need to attend in the construction of the development strategy; therefore, the management of hospital need to focus more on investing in upgrading establishment and medical equipment, upgrading working environment and admission system as well expanding the size of the hospital, especially, the medical examination area. That will ensure good environment in hospitals. The hospital administration needs to organize some counselling to patients before they arrive at the hospital and follow the clients’ progress when they are at home. Thus, the service healthcare in the hospital will be harmonious aspects for all dimensions (Table 4).

4.6. Analysis of variance ANOVA for Public hospital

Group theory about the difference in quality evaluation of healthcare services quality according to demographic variables (gender, level of education, income level). After analysis of variance (ANOVA) for Public hospital, result of the analysis of variance ANOVA gender, and income level groups showed that two hypothesis (H3a, H3c) are accepted, the analysis of variance ANOVA education groups indicated that one hypothesis (H3b) is rejected, it’s meaning that researchers can see the no difference in the assessing of the service quality under the "level of education", However, there is difference in the assessing of the service quality respectively under the "Gender", and between "monthly income level" in the model of public hospital.

Thus, the service will be not suitable for all customer groups, it was depend on the gender and monthly income level. The difference in the assessing of the quality respectively under gender by there is risk factors for cardiovascular disease depend on genders (male or female), such as hypertension, coronary artery disease, etc...[13], [14], [15] Among there patients, in addition to patients who have been medical treated with medications, many inpatients were underwent other interventions, such as electrophysiology intervention, percutaneous coronary intervention, transcatheter aortic valve implantation intervention, and surgeries; therefore, the additional payments are depend on each technique, each treatment method, and treatment process for each patient, although almost they were reduced cost by health insurance [13], [14], [15].
5.0 Conclusion

This inpatient satisfaction survey by tools of the VPSM is the first of its kind for public hospitals in Vietnam’s one developing country; Research indicated the levels of inpatient satisfaction about quality of the medical examination and treatment process which is influenced by the VPSM with 6 items (25 scores): Access and Admission, General Patient information, Treatment and Related information, Complaints, Management, Physical Environment, and Discharge and Follow dimension. Therefore, we hope that the Tool of VPSM can be used for measuring the quality of medical examination and treatment process in many countries including developed and developing countries. While the survey revealed depressing feedback, the motivation of the senior management to identify areas of concern and measure inpatient satisfaction is a step in the right direction. There would not be any scope to improve the service quality unless such bold steps at measuring patient satisfaction are pursued. Perhaps, repeating such studies at regular interval of say one cycle, such as per three months or annual per years will be a useful guide for material intervention in development strategy. There is no difference in the assessing quality of the medical examination and treatment process under the between the level of education, but there are difference in the assessing quality of the medical examination and treatment process under gender, and between income level groups in the model of this hospital.

References


