## CHAPTER IV

## RESRACH RESULT

## 1. Introduction


#### Abstract

This chapter presents the result of the study. This was a cross sectional study performed at Bhumibol Adulyadej Hospital, Bangkok, Thailand. The study population for this study was all patients who were admitted and discharged from the hospitals 23 wards. The study population consisted of all patients admitted as inpatients in the hospital for the 30 day time period of the study duration which started on $22^{\text {nd }}$ of February 2008 till $22^{\text {nd }}$ March 2008. Of the 250 questionnaires that were distributed for this study, 228 were eligible for analysis, 5 were ineligible due to consent form not being signed, 7 were lost at the hospital and 10 were returned blank. 228 questionnaires, a response rate of $91.2 \%$ were analyzed for this study. The data for this study were obtained from the 23 wards in the hospitals which resulted to 228 respondents. A comprehensive data table for the study is attached as appendix E.


## 2. Demographic Features

2.1 Gender

Group 1 had more female respondent's (53.85\%) than male (46.15\%)
Group 2 had more female respondent's ( $68.49 \%$ ) then male ( $31.51 \%$ )
Group 3 had more male respondents (55.04\%) than female (44.96\%)


Figure 2: Respondent Gender

### 2.2 Age

Group 1 had respondent with minimum age of 17 years old; maximum of 80 and average age of 40.83 .

Group 2 had respondent with minimum age of 16 years old; maximum of 80 and average age of 42.44 .

Group 3 had respondent with minimum of 14 years old; maximum of 84 and average age of 46.99 .


Figure 3: Respondent Age

### 2.3 Martial status

Group 1 had higher married respondent (68\%) followed by $24 \%$ single and $8 \%$ separated/widow.

Group 2 had higher married respondent ( $79.45 \%$ ) followed by $15.07 \%$ single and $5.48 \%$ separated/widow.

Group 3 like the two previous groups had higher married respondent (60.94\%) followed by $28.13 \%$ single and $10.94 \%$ separated/widow.


Figure 4: Respondent Martial Status

### 2.4 Education

Group 1 had higher primary or below education respondent (44\%) followed by $40 \%$ with secondary education and $16 \%$ with a bachelor's degree.

Group 2 had higher secondary education respondent (43.84\%) followed by $30.14 \%$ with primary education or below and $26.03 \%$ with a bachelor's degree.

Group 3 had higher secondary education respondent (48.41\%) followed by $26.19 \%$ with a bachelor's degree and $25.40 \%$ with primary education or below.

| 50.00\% |
| :--- |

Figure 5: Respondent Education

### 2.5 Occupation

Group 1 had $40 \%$, the highest percentage of respondent with 'others' as occupation; private at $28 \%$; government at $20 \%$; housewife at $12 \%$ and $0 \%$ for military.

Group 2 had $42.86 \%$, the highest percentage of respondent with "others" as occupation; housewife at $28.57 \%$; private at $14.29 \%$ and government and military were equal at $7.14 \%$ respectively.

Group 3 had $30.71 \%$ the highest percentage of respondent with "others" as occupation; private at $24.41 \%$; government at $20.47 \%$; housewife at $15.57 \%$ and
militaryat8.66\%.


Figure 6: Respondent Occupation

### 2.6 Income

Group 1 had an average income of $10,153.48$ baht/month
Group 2 had an average income of $15,411.71$ baht/month
Group 3 had an average income of 17,606.59 baht/month


Figure 7: Respondent Income

### 2.6 Responsible person or agency paying medical services

Group 1 had $30.77 \%$ of respondent using CSMBS as payment method; $26.92 \%$ used SSS or WSC; $23.08 \%$ used UCS; $15.38 \%$ paid out of pocket and $3.85 \%$ had private insurance.

Group 2 had $39.44 \%$ of respondent using CSMBS as payment method; $29.58 \%$ used UCS; $15.49 \%$ used SSS or WCS; $14.08 \%$ paid out of pocket and $1.41 \%$ used private insurance.

Group 3 had $49.61 \%$ of respondent using CSMBS as payment method; $26.77 \%$ used UCS; $16.54 \%$ used SSS or WCS; $6.30 \%$ paid out of pocket and $0.79 \%$ paid using private insurance.


Figure 8: Responsible person or agency paying for medical services

### 2.8 Length of Stay (LOS)

Out of the total 228 respondent in this survey;
Group 1 (length of stay $1-2$ days) had 26 patients;
Group 2 (length of stay $3-5$ days) had 73 and
Group 3 (length of stay 5 days and above) had 129


Figure 9: Length of Stay (LOS)
2.9 Inpatient department admitted to in hospital

Group 1 had $72.73 \%$ of respondent being admitted to other departments; $13.64 \%$ of respondent where admitted to medical and surgical departments respectively and none ( $0 \%$ ) in the maternity department.

Group 2 had equal percentage of $38.46 \%$ of respondent admitted to surgical and other departments respectively, followed by $20 \%$ in medical and $3.08 \%$ in maternity department.

Group 3 had $35.87 \%$ of respondent admitted in the medical department, $35.48 \%$ in surgical, $30.65 \%$ in others and none ( $0 \%$ ) being admitted in maternity department.


Figure 10: Inpatient department admitted to in hospital
2.10 What disease treatment did you receive at the Hospital?

Below figure show the top 3 disease treatment respondent received at the hospital. There was a wide variety of other disease treatment respondent came for at the hospital and to mention a few:

Group 1: Accident, appendicitis, postpartum hemorrhage
Group 2: Asthma, Pneumonia, UTI
Group 3: Diabetic, Lung, Bronchitis
But the majority of the respondent that came to the hospital for treatment was as
follows (Figure 11):


Figure 11: Treatment received for at the hospital

## 3. Assessment of services offered at the hospital

3.1 Why did you choose this hospital?

Group 1 had $24.69 \%$ of respondent choosing this hospital due to "easy access"; $17.28 \%$ due to "not being expensive"; $14.81 \%$ due to "pleasant facilities";
12.35\% due to "modern equipment", $11.11 \%$ for both "specialists" and "prompt service" and $8.64 \%$ were "regular patients" of the hospital.

Group 2 had $21.79 \%$ choosing this hospital due to "easy access"; $14.96 \%$ due to "modern equipments" and "pleasant facilities" respectively; $14.53 \%$ due to "prompt service"; $13.68 \%$ due to "specialist"; $10.26 \%$ cause it is "not too expensive" and 9.83\% are "regular patient" of the hospital.

Group 3 had 18.20\% choosing this hospital "due to easy access"; $16.13 \%$ due to "pleasant facilities" and "regular patients" respectively; $14.52 \%$ due to
"specialists"; $13.82 \%$ due to "modern equipment"; $12.67 \%$ due to "prompt service" and $8.53 \%$ due to the hospital being "not expensive".


Figure 12: Why did you choose this hospital?
3.2 Did you get advices on your illness and what you should do?

Group 1 had $100 \%$ of the respondent say that the advice given to them on there illness was clear.

Group 2 had $97.26 \%$ of respondent state they received clear advice on illness and 2.74\% did receive advice on illness but was not clear.

Group 3 had $94.57 \%$ of respondent state they received clear advice on illness, $4.65 \%$ did receive but it was not clear and $0.78 \%$ said they did not receive any advice on illness.


Figure 13: Did you get advices on your illness and what you should do?
3.3 Did you get the results of laboratory examination or x-ray?

Group 1 had $79.17 \%$ of respondent who stated they received clearly the results of lab and x-ray reports, $8.33 \%$ stated they did receive but not clear and $12.50 \%$ stated they received none.

Group 2 had $83.10 \%$ of respondent who stated they clearly received the results of lab and x -ray reports; $8.45 \%$ mentioned they received but not clearly and $8.45 \%$ mentioned they received none.

Group 3 had $89.06 \%$ of respondent who stated they received clearly the results of lab and x-ray reports; $6.25 \%$ mentioned they received but it was not clear and $4.69 \%$ mentioned they received none.


Figure 14: Did you get the results of lab examination or x-ray?
3.4 Did you get the explanation about your treatment or operation?

Group 1 had $84 \%$ of the respondent mention that they received clear explanation for treatment and operation, $12 \%$ received none and $4 \%$ received explanation but not clear.

Group 2 had $97.10 \%$ of the respondent mention that they received clear explanation for treatment and operation; $1.45 \%$ received explanation but not clear and $1.45 \%$ received none.

Group 3 had $88.80 \%$ of the respondent mention they received clear explanation for treatment and operation; $6.40 \%$ received explanation but not clear and $4.80 \%$ mentioned they received none.


Figure 15: Did you get explanation about your treatment plan or operation?

### 3.5 Did you get advices before discharged?

Group 1 had $91.67 \%$ of patient sample mention that they received advice before discharge; $4.17 \%$ mentioned that they received but not clear and $4.17 \%$ received none.

Group 2 had $95.77 \%$ of the patient sample mention that they received advice before discharge; $2.82 \%$ stated they received none and $1.41 \%$ stated they received advice but not clear.

Group 3 had $93.22 \%$ of the patient sample mention that they received advice before discharge; $5.08 \%$ mentioned they received none and $1.69 \%$ stated they received advice but not clear.


Figure 16: Did you get adyices before discharge?
3.6 Did you know the physicians who treat you?

Group 1 had $52 \%$ of the respondent mention that they know their doctors name; $32 \%$ mentioned they did not know and $16 \%$ mentioned yes but do not know the name.

Group 2 had $83.33 \%$ of the respondent mention that they know their doctors name; $12.50 \%$ mentioned yes but do not know the name and $4.17 \%$ did not know. Group 3 had $93.75 \%$ of the respondent mention that they know their doctors name; $4.69 \%$ mentioned yes but do not know the name and $1.56 \%$ did not know.


Figure 17: Did you know the physicians who treat you?
4. Patient assessment of general services at the hospital

### 4.1 Cleanliness of room

Group 1 had $68 \%$ of the respondent mention that cleanliness of room is good; $20 \%$ mentioned fair and $12 \%$ mentioned it to be very good.

Group 2 had $59.15 \%$ of the respondent mention that the cleanliness of room is good; $25.35 \%$ mentioned very good and $15.49 \%$ mentioned it to be fair.

Group 3 had $63.78 \%$ of the respondent mention that the cleanliness of room is good; $25.20 \%$ mentioned it very good and $11.02 \%$ mentioned it to be fair.


Figure 18: Cleanliness of room

### 4.2 Convenience of room

Group 1 had $60 \%$ of the patient sample mention that convenience of room was good; $24 \%$ mentioned it to very good and $16 \%$ mentioned it to be fair.

Group 2 had $51.39 \%$ of the patient sample mention that convenience of room was good; $26.39 \%$ mentioned it to be very good; $20.83 \%$ mentioned it to be fair and $1.39 \%$ mentioned it to be bad.

Group 3 had $64.84 \%$ of the patient sample mention that convenience of room was good; $23.44 \%$ mentioned it to be very good and $11.72 \%$ mentioned it to be fair.


Figure 19: Convenience of room

### 4.3 Staffs' coordination and cooperation

Group 1 had $56 \%$ of the patient sample mention that coordination and cooperation of staffs where good; $24 \%$ mentioned it to be very good and $20 \%$ mentioned it to be fair.

Group 2 had $52.86 \%$ of the patient sample mention that coordination and cooperation of staffs where good; $40 \%$ mentioned it to be very good and $7.14 \%$ mentioned it to be fair.

Group 3 had $49.61 \%$ of the patient sample mention that coordination and cooperation of staffs where good; $44.09 \%$ mentioned it to be very good and $5.51 \%$ mentioned it to be fair.

|  |  |  |  |
| :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 |
| - Very Good | 24.00\% | 40.00\% | 44.09\% |
| EGood | 56.00\% | 52.86\% | 49.61\% |
| WFair | 20.00\% | 7.14\% | 5.51\% |
| -Bad | 0.00\% | 0.00\% | 0.00\% |
| \% Very Bad | 0.00\% | 0.00\% | 0.00\% |
| Wassess | 0.00\% | 0.00\% | 0.79\% |

Figure 20: Staffs' coordination and cooperation

### 4.4 Physicians' ability

Group 1 had $52 \%$ of respondent mention that physicians' ability to be very good and $48 \%$ mentioned it to be good.

Group 2 had $61.97 \%$ of respondent mention that physicians' ability to be very good; $33.80 \%$ mentioned it to be good and $4.23 \%$ mentioned it to be fair.

Group 3 had $64.84 \%$ of respondent mention that physicians' ability to be very good; $32.81 \%$ mentioned it to be good; $1.56 \%$ mentioned it to be fair and $0.78 \%$ mentioned they cannot assess the service.


Figure 21: Physicians' ability

### 4.5 Physicians physical examination

Group 1 had $56.52 \%$ of respondent mention that physicians' physical examination to be good and $43.48 \%$ mentioned it to be very good.

Group 2 had $47.83 \%$ of respondent mention that physicians' physical examination to be very good; $47.83 \%$ mentioned good and $4.35 \%$ mentioned it to be fair.

Group 3 had $55.81 \%$ of respondent mention that physicians' physical examination to be very good; $40.31 \%$ mentioned it to be good; $3.10 \%$ mentioned it to be fair and $0.78 \%$ mentioned it cannot assess the service.


Figure 22: Physicians' physical examination

### 4.6 Physicians' responsiveness

Group 1 had $60 \%$ of respondent mention that the physicians' responsiveness was good and $40 \%$ mentioned it to be very good.

Group 2 had $56.34 \%$ of respondent mention that the physicians' responsiveness was very good; $40.85 \%$ mentioned it to be good and $2.82 \%$ mentioned it to be fair. Group 3 had $50.39 \%$ of respondent mention that the physicians' responsiveness was very good; $46.51 \%$ mentioned it to be good; $2.33 \%$ mentioned it to be fair and $0.78 \%$ mentioned that they could not assess this service.

| $60.00 \%$ |  |  |  |
| :--- | :--- | :--- | :--- |

Figure 23: Physicians' responsiveness

### 4.7 Physicians' attention to take care

Group 1 had $68 \%$ of respondent mention that physicians' attention to take care was good; $28 \%$ mentioned it to be very good and $4 \%$ mentioned it to be fair.

Group 2 had $50.70 \%$ of respondent mention that physicians' attention to take care was very good; $43.66 \%$ mentioned it to be good and $5.63 \%$ mentioned it to be fair. Group 3 had $50.39 \%$ of respondent mention that physicians' attention to take care was very good; $43.41 \%$ mentioned it to be good; $4.65 \%$ mentioned it to be fair and $1.55 \%$ mentioned that they cannot assess this service.


Figure 24: Physicians' attention to take care

### 4.8 Physicians' manner

Group 1 had $68 \%$ of respondent mention that physicians' manner was good and $32 \%$ mentioned it to be very good.

Group 2 had $55.56 \%$ of respondent mention that physicians' manner was good; $43.06 \%$ mentioned it to be very good and $1.39 \%$ mentioned it to be fair.

Group 3 had $55.04 \%$ of respondent mention that physicians' manner was very good; $42.64 \%$ mentioned it to be good; $1.55 \%$ mentioned it to be fair and $0.78 \%$ mentioned that they cannot assess this service.

| 70.00\% |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| 60.00\% |  |  |  |
| 50.00\% |  |  |  |
| 40.00\% |  |  |  |
| 30.00\% |  |  |  |
| 20.00\% |  |  |  |
| $10.00 \%$ |  |  |  |
| $10.00 \%$$0.00 \%$ |  |  |  |
|  | 1 | 2 | 3 |
| - Very Good | 32.00\% | 43.06\% | 55.04\% |
| EGood | 68.00\% | 55.56\% | 42.64\% |
| mFair | 0.00\% | 1.39\% | 1.55\% |
| - Bad | 0.00\% | 0.00\% | 0.00\% |
| 6. Very Bad | 0.00\% | 0.00\% | 0.00\% |
| Cannot Assess | 0.00\% | 0.00\% | 0.78\% |
|  |  | Group |  |

Figure 25: Physicians' manner

### 4.9 Nurses' ability

Group 1 had $60 \%$ of respondent mention that nurses' ability was good and $40 \%$ mentioned it to be very good.

Group 2 had $52.11 \%$ of respondent mention that nurses' ability was good; $42.25 \%$ mentioned it to be very good and $5.63 \%$ mentioned it to be fair.

Group 3 had $48.84 \%$ of the respondent mention that nurses' ability was very good; $47.29 \%$ mentioned it to be good; $3.10 \%$ mentioned it to be fair and $0.78 \%$ mentioned that they cannot assess this service.

| $60.00 \%$ |
| :--- | :--- | :--- | :--- | :--- |

Figure 26: Nurses' ability

### 4.10 Nurses' responsiveness

Group 1 had $52 \%$ of respondent mention that nurses' responsiveness was very good; $40 \%$ mentioned it to be good and $8 \%$ mentioned it to be fair.

Group 2 had $47.22 \%$ of respondent mention that nurses' responsiveness was very good; $44.44 \%$ mentioned it to be good and $8.33 \%$ mentioned it to be fair.

Group 3 had $55.91 \%$ of respondent mention that nurses' responsiveness was good;
$37.80 \%$ mentioned it to be very good and $6.30 \%$ mentioned it to be fair.

| 60.00\% |  | 1 |  |
| :---: | :---: | :---: | :---: |
|  | 5 |  |  |
| 4 40.00\% |  | - |  |
| ¢ 30.00\% |  |  |  |
| U 20.00\% |  |  |  |
| - 10.00\% |  | 푸N/I |  |
|  | 1 | 2 | 3 |
| Very Good | 52.00\% | 47.22\% | 37.80\% |
| EGood | 40.00\% | 44.44\% | 55.91\% |
| IIIFair | 8.00\% | 8.33\% | 6.30\% |
| Bad | 0.00\% | 0.00\% | 0.00\% |
| Z Very Bad | 0.00\% | 0.00\% | 0.00\% |
| - Cannot Assess | 0.00\% | 0.00\% | 0.00\% |

Figure 27: Nurses' responsiveness

### 4.11 Nurses' attention to take care

Group 1 had $52 \%$ of respondent mention that nurses' attention to take care was good; $40 \%$ mentioned it to be very good and $8 \%$ mentioned it to be fair.

Group 2 had $47.89 \%$ of respondent mention that nurses' attention to take care was good; $43.66 \%$ mentioned it to be very good and $8.45 \%$ mentioned it to be fair.

Group 3 had $50 \%$ of respondent mention that nurses' attention to take care was good; $46.09 \%$ mentioned it to be very good and $3.91 \%$ mentioned it to be fair.


Figure 28: Nurses' attention to take care

### 4.12 Nurses' manners

Group 1 had $54.17 \%$ of respondent mention that nurses' manner was good; $33.33 \%$ mentioned it to be very good and $12.50 \%$ mentioned it to be fair.

Group 2 had $45.07 \%$ of respondent mention that nurses' manner was very good; $45.07 \%$ mentioned it to be good; $8.45 \%$ mentioned it to be fair and $1.41 \%$ mentioned it to be bad.

Group 3 had $51.59 \%$ of respondent mention that nurses' manner was good; $42.06 \%$ mentioned it to be very good and $6.35 \%$ mentioned it to be fair.


Figure 29: Nurses' manners

### 4.13 Others staff's manner

Group 1 had $56 \%$ of respondent mention that manners of other staffs' to be good; $24 \%$ mentioned it to be very good and $20 \%$ mentioned it to be fair.

Group 2 had $58.57 \%$ of respondent mention that manners of other staffs' to be good; $21.43 \%$ mentioned it to fair and $20 \%$ mentioned it to be very good.

Group 3 had $57.14 \%$ of respondent mention that manner of other staffs' to be good; $26.98 \%$ mentioned it to be very good and $15.87 \%$ mentioned it to be fair.


Figure 30: Others staffs' manner

### 4.14 Overall satisfaction with hospital care

Group 1 had $62.50 \%$ of respondent mention that their overall satisfaction with hospital care was good; $33.33 \%$ mentioned it to be very good and $4.17 \%$ mentioned that they cannot assess.

Group 2 had $47.22 \%$ of respondent mention their overall satisfaction with hospital care was very good; another $\mathbf{4 7 . 2 2 \%}$ mentioned it to be good and $5.56 \%$ mentioned it to be fair.

Group 3 had $49.22 \%$ of respondent mention their overall satisfaction with hospital care was good; $46.09 \%$ mentioned it to be very good and $4.69 \%$ mentioned it to be fair.


Figure 31: Overall satisfaction with hospital care
5. Final patient assessment of hospital services
5.1 Will you recommend this hospital to friends and family in future?

Group 1 had $88.46 \%$ of respondent mention they would recommend this hospital to relatives or friends; $7.69 \%$ were not sure if they would recommend and $3.85 \%$ would definitely not recommend.

Group 2 had $84.93 \%$ of respondent mention they would recommend this hospital to relatives or friends; $13.70 \%$ were not sure if they would recommend and $1.37 \%$ would definitely not recommend.

Group 3 had $89.60 \%$ of respondent mention they would recommend this hospital to relatives or friends; $9.60 \%$ were not sure if they recommend and $0.80 \%$ would definitely not recommend.


Figure 32: Will you recommend this hospital to relatives or friends if they get ill?
5.2 Will you come back to this same hospital in future if you get ill?

Group 1 had $70.83 \%$ of respondent mention they would come back to this hospital if ill again and $29.17 \%$ mentioned they were not sure.

Group 2 had $78.08 \%$ of respondent mention they would come back to this hospital if ill again and $21.92 \%$ mentioned they were not sure.

Group 3 had $88.19 \%$ of respondent mention they would come back to this hospital if ill again; $11.02 \%$ mentioned they were not sure and $0.79 \%$ was absolutely not to come back to this hospital.


Figure 33: Will you come back to this hospital if you get ill again?
5.3 Suggest three most important quality of services need improvement in this hospital.

There was a variety of suggestions that was obtained from the 228 respondents. Suggestions were made in variety of services such as facility, services, hospital environment and food. The three most suggested important quality of services need improvement in this hospital by the respondent were as follows:

1 Inadequate medical staffs
2 Long waiting time for hospital services
3 Cleanliness of hospital

## 6. Statistical Analykis

Few of the variables from the questionnaire were picked for further statistical analysis after seeing certain trends using descriptive statistic. Fisher's exact test was performed where out of the nine variables, only one variables was found to be statistical significant. There was a significant association (p-value .046 ) between the question, 'Did you get the explanation about your treatment plan or operation?' and patient satisfaction. Another variable 'Staffs' coordination and cooperation' had a p-value of .084 which almost had a significant association.

Table 4: Statistical Analysis

|  | Item | Trend | P-value |
| :---: | :---: | :---: | :---: |
| 1 | Advice on illness (Question \# 12) | Downward | . 533 |
| 2 | Did you get the results of laboratory examination or $x$ ray? (Question 13) | Upward | . 282 |
| 3 | Did you get the explanation about your treatment plan or operation? (Question \# 14) | Upward- <br> Downward | .046* |
| 4 | Cleanliness of room <br> (Question 17) | Upward | . 393 |
| 5 | Convenience of room (Question \# 18) | DownwardUpward | . 122 |
| 6 | Staffs' coordination and cooperation (Question \# 19) | Upward | . 084 |
| 7 | Physicians' responsiveness (Question \# 22) | Downward | 1.000 |
| 8 | Physicians' attention to take care (Question \# 23) | Downward | 1.000 |
| 9 | Other staffs' manner (Question 29) | DownwardUpward | . 565 |

