CHAPTER V

DISCUSSION, CONCLUSION, RECOMMENDATION AND STUDY

LIMITATION

1. Discussion

This study was designed based on cross-sectional study. As stated "this design is best suited to studies aimed at finding out the prevalence of phenomenon, situation, problem, attitude or issue, by taking a cross-section of the population. They are useful in obtaining an overall 'picture' as it stands at the time of study" (Kumar, 2005). This snapshot results from this study can be used to view and understand patients' satisfaction with influence of length of stay at this hospital.

This section shall focus on the discussion of the findings from this study and compare them to prior research findings. The researcher had a difficult time comparing this to other studies as there was very few studies performed on patient satisfaction and length of stay. Most of other studies on patient satisfaction compared 'patient satisfaction' with other variables such as age, gender, education, income etc. When comparison studies were not found, the researcher tried to discuss why such findings could have resulted to best of his knowledge.

Part 1 [A few questions about yourself (General Information)]

The study had more female (122) respondents compared to male (106). The average age of a respondent was 43.42 years old, maximum of 84 years old and

minimum of 14 years old. A higher percentage of respondents were married with lesser being single or separated/widowers. Number of respondents with secondary/diploma or Bachelor degree was seen to increase with longer stay groups whereas primary school or below decreased through Groups 1 – 3. The respondents in the study had a wide variety of occupation beside the ones listed in the questionnaire as a large number of them checked 'others' as being their occupation. The payment method used by large number of respondent was the 'Civil Servant Medical Benefit Scheme (CSMBS)' where Group 1 had 30.77%; Group 2 had 39.44% and Group 3 had 49.61%. Respondent in this study came from a wide range of hospital department where majority of Group 1 respondents were from 'other' department; Group 2 had majority of respondents equally distributed among 'surgical' and 'others' department and Group 3 had majority respondents from the 'surgical department'. Respondents were mainly treated in the hospital for the following reasons:

Group 1 had 10 patients that were admitted to the hospital for delivery; 5 patients for cataract and 1 patient stated as others.

Group 2 had 9 patients that were admitted to the hospital for appendicitis and 9 for delivery; 5 patients for cataract and 4 for fractures.

Group 3 had 11 patients that were admitted to the hospital for kidney related diseases; 9 patients due to accident and 9 for heart problems and 6 due to arthritis and 6 for cancer.

Part 2 (Assessment of services you get at this time)

(Question 11) Why did you choose this hospital?

All 3 groups choose this hospital the most due to "easy access" but Group 3 (LOS 5 days and above) also had a high number of patient pick this hospital due to them being "regular patient" at this hospital. The researcher believes that large number of patients coming to this hospital is from around the area where the hospital is located which is why they state the hospital to be easily accessible.

Note: In terms of analysis of Question 12 – Question 16 the researcher would only look into the positive indicator which is "Yes, clearly understood". Based on this the researcher shall discuss the trend of satisfaction among the 3 groups of patient samples.

(Question 12) Did you get advices on your illness and what you should do?

Advice on illness and what should be done had a downward trend of satisfaction where Group 1 had 100%; Group 2 had 97.26% and Group 3 had 94.57% of patient sample scoring it "Yes, clearly understood". Group 1 having the most satisfied respondent shows that longer the patient stays in the hospital less the advice they are getting on their illness. Fisher's exact test was further performed to see the association which resulted to a p-value of .533 showing not statistical significant.

(Question 13) Did you get the results of laboratory examination or X-ray?

Receiving results of laboratory examination and x-ray had an upward trend of satisfaction where Group 1 had 79.17%; Group 2 had 83.10% and Group 3 had

89.06% of patient sample scoring it "Yes, clearly understood". In contrast to a prior study in Thailand, 67.8% were satisfied (Tangcharoensatgien, 1999), whereas, this study had an average satisfaction of 83.78% among the 3 groups [(79.17%+83.10%+89.06%)/3=83.78%]. This study further shows that longer the patient stay the more satisfied they are with receiving results of laboratory examination and x-ray results. Fisher's exact test was further performed to see the association which resulted to a p-value of .282 showing not statistical significant.

(Question 14) Did you get the explanation about your treatment plan or operation?

Explanation about treatment plan or operation was scored at 84% by Group 1 which increased to 97.10% in Group 2 and it further declined to 88.80% in Group 3. Previous study in Bangkok, Thailand reported 75.9% were satisfied with this service (Tangcharoensatgien, 1999). Whereas, this study had the average among the 3 groups higher at 89.97% [(84%+97.10%+88.80%)/3=89.97%]. There is an increase in satisfaction from Group 1 to Group 2 but the satisfaction level drops in Group 3 which is the longest stay respondents at the hospital. Fisher's exact test was further performed to see the association which resulted to a p-value of .046 showing statistical significant relation between this question and patient satisfaction.

(Question 15) Did you get advices before discharged?

Advices before discharge was scored at 91.67% by Group 1 which increased to 95.77% in Group 2 and it further declined to 93.22% in Group 3. There is an

increase in satisfaction from Group 1 to Group 2 but the satisfaction level drops in Group 3 which is the longest stay respondents in the hospital.

(Question 16) Did you know the physicians who treat you?

There was an upward trend of knowing the physicians who treated you with length of stay. Group 1 had 52%; Group 2 had 83.33% and Group 3 had 93.75% of respondent knowing the physicians who treated them. This trend can be interpreted as the longer the length of stay the patients are in contact more with their physician and have better interaction and better chance to know each other.

Note: In terms of analysis of Question 17 – Question 30 the researcher would only look into the positive indicators which are "very good" and "good". Based on this the researcher shall discuss the trend of satisfaction among the 3 groups of patient samples.

Part 3 (Your assessment on the following services)

(Question 17) Cleanliness of room

Cleanliness of room had an upward trend of satisfaction where Group 1 had 80%; Group 2 had 84.51% and Group 3 had 88.98% respondents scoring it as either "very good" or "good". The trend in this study is found to contradict prior study where it was reported that with "the longer the length of stay there is lower satisfaction on items such as cleanliness." (Quintana, 2006). Fisher's exact test was further performed to see the association which resulted to a p-value of .393 showing not statistical significant.

(Question 18) <u>Convenience</u> of room

Convenience of room was scored at 84% by Group 1; 77.78% by Group 2 and 88.28% by Group 3 as either "very good" or "good". The researcher believes as with shorter length of stay patient scored high as they are in the hospital short and might not pay too much attention on convenience of room as long as other variable such as medical treatment is taken care for. Whereas longer the stay (Group 2) the patients might be looking for convenience as they have to stay in the hospital for more number of days which they were less satisfied with at this hospital. As for Group 3, the longest length of stay patient group, satisfaction is high once again which might be due to the various factors such as they are getting the service or as they have stayed longer they are more familiar with the surrounding and find it convenient. Hence the trend seen here is that there is a decrease of satisfaction from Group 1 to Group 2 and yet an increase in Group 3. Fisher's exact test was further performed to see the association which resulted to a p-value of .122 showing not statistical significant.

(Question 19) Staffs' <u>coordination</u> and cooperation

Coordination and cooperation had an upward trend of satisfaction where Group 1 had 80%; Group 2 had 92.86% and Group 3 had 93.70% respondent scoring it as either "very good" or "good". The researcher believes that with longer the stay the system of care at the hospital is more formal where staffs are working in a more coordinated manner. Fisher's exact test was further performed to see the association which resulted to a p-value of .084 showing not statistical significant.

(Question 20) <u>Physicians'</u> ability

Physicians' ability was scored as either "very good" or "good" by 100% in Group 1 which decreased to 95.77% in Group 2 and yet again increased to 97.66% in Group 3. The overall satisfaction level on the ability of physicians' was high among all three groups but the least satisfied group was Group 2. Hence the trend seen here is that there is a decrease of satisfaction from Group 1 to Group 2 and yet an increase in Group 3.

(Question 21) Physicians' <u>physical examination</u>

Physicians' physical examination was scored either "very good" or "good" by 100% in Group 1 which decreased to 95.65% in Group 2 and yet again increased to 96.12% in Group 3. A prior study in Bangkok, Thailand show that patients in private non-profit hospital had the highest level of satisfaction at 79.1% and public hospital was at 73.2% (Tangcharoensatgien, 1999). The overall satisfaction level of physician physical examination was higher at 97.26% [(100%+95.65%+96.12%)/3=97.26%] for this study. This shows that the respondents were highly satisfied with physicians' physical examination which was not affected by length of stay. Hence the trend seen here is that there is a decrease of satisfaction from Group 1 to Group 2 and yet an increase in Group 3.

(Question 22) <u>Physicians'</u> responsiveness

Physicians' responsiveness had a downward trend of satisfaction where Group 1 had 100%; Group 2 had 97.18% and Group 3 had 96.90% of patient sample scoring

it as either "very good" or "good". The longer the length of stay the less satisfied respondents were with physicians' responsiveness which brings to attention that physicians' need to be aware of patients in all groups – the ones that have just been admitted to the ones that have stayed longer in the hospital for treatment. Fisher's exact test was further performed to see the association which resulted to a p-value of 1.000 showing not statistical significant.

(Question 23) Physicians' attention to take care

Physicians' attention to take care had a downward trend of satisfaction where Group 1 had 96%; Group 2 had 94.37% and Group 3 had 93.80% of patient sample scoring it as either "very good" or "good". The longer the length of stay the less satisfied respondents were with physicians' attention to take care which brings to attention that physicians' need to be aware of patients in all groups – the ones that have just been admitted to the ones that have stayed longer in the hospital for treatment. Fisher's exact test was further performed to see the association which resulted to a p-value of 1.000 showing not statistical significant.

(Question 24) Physicians' manner

Physicians' manner had a downward trend of satisfaction where Group 1 had 100%; Group 2 had 98.61% and group 3 had 97.67% of patient sample scoring it as either "very good" or "good". A prior study in Bangkok, Thailand show that physicians' manner was scored high at 84.6% which was the highest among various hospital groups (Tangcharoensatgien et al., 1999). Likewise, this study depicts the

same trend where the average among the 3 groups was at 98.76% [(100%+98.61%+97.67%)/3=98.76%]. But the satisfaction level had a downward trend showing Group 1 with very satisfied patients and lesser satisfied patients with longer length stay (Group 2 and Group 3). The researcher believes that the respondents are feeling neglected as they stay longer in the hospital.

(Question 25) Nurses' ability

Nurses' ability was scored either "very good" or "good" by 100% in Group 1 which decreased to 94.37% in Group 2 and yet again increased to 96.12% in Group 3. Group 2 had the least satisfied set of respondent regarding nurses' ability. Hence the trend seen here is that there is a decrease of satisfaction from Group 1 to Group 2 but an increase in Group 3.

(Question 26) Nurses' responsiveness

Nurses' responsiveness was scored either "very good" or "good" by 92% in Group 1 which decreased to 91.67% in Group 2 and yet again increased to 93.70% in Group 3. Group 2 had the least satisfied set of respondent regarding nurses' responsiveness. Hence the trend seen here is that there is a decrease of satisfaction from Group 1 to Group 2 and yet an increase in Group 3.

(Question 27) Nurses' attention to take care

Nurses' attention to take care was scored either "very good" or "good" by 92% in Group 1 which decreased to 91.55% in Group 2 and yet again increased to

96.09% in Group 3. Group 2 had the least satisfied set of respondent regarding nurses' attention to take care. Hence the trend seen here is that there is a decrease of satisfaction from Group 1 to Group 2 and yet an increase in Group 3.

(Question 28) <u>Nurses'</u> manners

Nurses' manners had an upward trend of satisfaction where Group 1 had 87.50%; Group 2 had 90.14% and Group 3 had 93.65% of respondent scoring it as either "very good" or "good". A prior study in Bangkok, Thailand where patients were asked about nurses' manner 80.9% were satisfied (Tangcharoensatgien et al., 1999). This study depicts the same trend where Group 1 (shortest length of stay) had 87.50% and the average among all groups had 90.43% [(87.50%+90.14%+93.65%)/3=90.43%]. This trend could mean that with longer the stay, the patients tend appreciate the nurses' manner and work and has higher satisfaction with the service.

(Question 29) <u>Others</u> staffs' manner

Others staffs' manner was scored either "very good" or "good" by 80% in Group 1 which decreased to 78.57% in Group 2 and yet again increased to 84.13% in Group 3. Group 2 had the least satisfied set of respondent regarding other staffs manner in the hospital. Hence the trend seen here is that there is a decrease of satisfaction from Group 1 to Group 2 and yet an increase in Group 3. Fisher's exact test was further performed to see the association which resulted to a p-value of .565 showing not statistical significant.

(Question 30) <u>Overall satisfaction</u> with hospital care

Overall satisfaction with care was scored either "very good" or "good" by 95.83% in Group 1 which decreased to 94.44% in Group 2 and yet again increased to 95.31% in Group 3. When looking at the overall satisfaction among 3 groups of patient there is not much difference with all the three groups scoring high which indicates their high satisfaction with the hospital. Nevertheless group 2 had the least satisfied set of respondent regarding overall satisfaction with hospital care. Hence the trend seen here is that there is a decrease of satisfaction from Group 1 to Group 2 and yet an increase in Group 3.

Part 4 (Your final assessment of hospital services)

(Question 31) If your relatives or friend get ill, will you recommend this hospital to them?

Group 1 had 88.46% of the respondent willing to recommend this hospital to relatives or friend compared to 84.93% in Group 2 and 89.60% in Group 3. Previous study in Bangkok, Thailand where recommendation at public hospital was found high at 76% (Tangcharoensatgien et al., 1999), this study depicts the same trend where the average among the 3 groups was at 87.66% [(88.46%+84.93%+89.60%)/3=87.66%]. Group 2 had respondent which were least likely to recommend this hospital to relatives or friends if they get ill.

(Question 32) If you get ill again and you can choose other hospitals, will you come back to this hospital?

There was an upward trend of willing to come back to this hospital if ill within the three groups where Group 1 had 70.83%; Group 2 had 78.08% and Group 3 had 88.19%. Previous study in Bangkok, Thailand where the patients were willing to come back to this hospital if ill was at 62% (Tangcharoensatgien et al., 1999). This study depicts the same trend where the average among the three groups was at 79.03% [(70.83%+78.08%+88.19%)/3=79.03%]. This study further shows that the shorter the length of stay in the hospital the less likely you are willing to come back to this hospital in further time. This trend can be supplemented from Question 11 where the longest length of stay (Group 3) patient where mostly at the hospital due to "easy assess" or "regular patients".

(Question 33) Please suggest the **three most important quality of services need improvement** in this hospital.

The three most important quality of service need improvement suggested by the respondent in this hospital were as follows:

1 Inadequate medical staffs

2 Long waiting time for hospital services

3 Cleanliness of hospital

When explaining inadequate medical staffs patients are suggesting that more medical staff means more time for these medical staff with each patients. More

medical staff means the medical staff can give more undivided attention to individual patients in terms of service, advice and care.

Long waiting time for hospital services is being associated with the hospital being crowded where patients have to wait long time for various services. Cleanliness of hospital is being associated with cleaner toilets, cleaner patient rooms and cleaner linens in patient beds.

2. Conclusion

A hospital as a health care service provider faces many challenges where it has to incorporate a large number of human resources and their duties to successfully delivery quality care to their numerous patients. A hospital as a health care institution is always challenged to provide the best quality of care that their patient need who are of various age, sex, illness etc. In modern age health services, quality health care is an important aspect of health care system which should attempt to provide the best possible care. Thus the quality of health care services should always be improved and maintained at the highest level.

As mentioned earlier there had been many studies related to patient satisfaction with various variables but a very few on length of stay (LOS). This study results as reported here are indicative rather than definitive. These were collected using questionnaires seeking answers from patients about hospital care and trying to interpret those results into patient satisfaction with the influence of length of stay.

Nevertheless as published in the WHO health evidence network report 2003, "measurement is central to the concept of hospital quality improvement; it provides a mean to define what hospitals actually do and to compare that with the original targets in order to identify opportunities for improvement". And this study has indeed brought some interesting facts which shall help the hospital indentify sources of patient satisfaction and dissatisfaction.

This study has shown high level of overall patient satisfaction among the three groups (95.83% for Group1, 94.44% for Group 2 and 95.31% for Group 3). As stated in a prior study, "for inpatient care public hospitals had higher levels of satisfaction amongst clientele than private for-profit hospitals (Tangcharoensatgien et al., 1999).

This study has further unfolded some interesting fact on some variable which were found to be more satisfied or less satisfied among different length of stay. Less satisfied with longer length of stay (LOS) in the hospitals were variable such as advice on illness, physicians' responsiveness, physician's attention to take care and physicians' manner.

Whereas less satisfied with shorter length of stay (LOS) in the hospital were variable such as results of laboratory and x-ray, cleanliness of room, staffs coordination and cooperation and nurses' manner.

Variables such as explanation of treatment plan or operation and advice before discharge increased from Group 1 to Group 2 but it decreased in Group 3 the longest length of stay group. On contrary, variable such as convenience, physicians' ability, physicians' physical examination, nurses' ability, nurses' responsiveness, nurses' attention to take care, others staffs' manner and overall satisfaction with hospital care decreased from Group 1 to Group 2 but an increase was seen in Group 3 the longest length of stay group.

As stated earlier, 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 variable was found to be statistical significant. There was a significant relation (p-value .046) between the question # 14, 'Did you get the explanation about your treatment plan or operation?' and patient satisfaction.

As stated in a prior study "customer satisfaction is an important measure of quality service in health care organizations. From a management perspective, patient satisfaction with health care is important for several reasons where management can identify sources of patient dissatisfaction and can organize to address system's weaknesses. On the other hand, this benefits the patients as well as they are getting better quality service. Previous studies have shown that "satisfied patients are more likely to follow specific medical regimens and treatment plans for better outcome (Gadallah et al., 2003)." I hope this information gathered from this study which were

the "true voices" of the patients of the hospital be heard and met for improvements and better patient satisfaction which are influenced by different length of stay (LOS).

3. Recommendation

    3.1 Future Studies

        3.1.1 Future studies should be performed in various hospital types such as private, not-for-profit, for-profit and university hospital to get better analysis of patient satisfaction among different types of hospitals.

        3.1.2 Future studies must be done in detail to explain why each of those variables is affected by different length of stay.

        3.1.3 Multiple regression can be used to explore in-depth relation between all the variables and patient satisfaction.

    3.2 Hospital

        3.2.1 Hospital management needs to focus and improve those variables which were less satisfied by different length of stay to improve for the future.

        3.2.2 Hospital management should initiate more studies in the future on exactly why some variables are less satisfied by different length of stay.

        3.2.3 Hospital management should reward (kind/cash) those departments/groups with higher patient satisfaction so that the departments/groups with less satisfied patients have some incentives to work harder/better for higher patient satisfaction.

3.2.4 Hospital management need to pay attention to the three most important quality services that need improvement in the hospital which were suggested by the patients: inadequate medical staffs, long waiting time for hospital services and cleanliness of hospital.

4. Study Limitations

4.1 This study was performed at one public hospital in Bangkok, Thailand. These findings cannot be generalized among other hospital such as private, not for profit, for-profit and university hospitals because of difference in patient population, service of care and other variables.

4.2 When using a questionnaire as a tool, there could be a possibility of biasness where the patients might give superficial correct or wrong responses.

4.3 Data collection for this study was conducted over a 30 day period which might be short of a period not giving complete accurate satisfaction information.