



CHAPTER III

RESEARCH METHOD

1. Research Design

A cross sectional descriptive study with a questionnaire was given to Voluntarily random samples of inpatients at the hospital on the day of discharge. Patient sample for this study were divided into three groups based on their length of stay (LOS) at the hospital:

Group 1: 1 - 2 Days

Group 2: 3 – 5 Days

Group 3: 5 Days Above

The three groups were divided as per the above intervals as the average length of stay in hospital in Thailand ranges from 3.1 days (Private for profit hospital) to 8.74 days (Public University Hospital) (Tangcharoensatgien et al., 1999). The three groups of patient population were to be compared to measure the level of satisfaction of patients at the inpatients department and primarily try to find the influence of length of stay (LOS) on patient satisfaction at the hospital. Descriptive statistics with tables and graphs were used to illustrate, organize and describe various characteristic and patient satisfaction levels among the three groups of length of stay (LOS) from the data obtained from the study questionnaire. Informed consent was obtained from

each respondent before they were requested to complete the questionnaire and confidentiality of responses was assured to the highest level by the researcher.

2. Study population

The study population for this study was all patients that were admitted and discharged from the hospital. The study population was the patients that consent to participate in the study. 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 22nd of February 2008 and ended on 22nd March 2008. Relative or care takers of the inpatient were allowed to act as a proxy for those inpatients who consent to participate in the study but who cannot read or write. Criteria for inclusion and exclusion were as follows:

- Inclusion criteria:
 - At least 1 day of hospital stay
 - Both male and female
 - Patients admitted in adult ward
 - Willingness to participate with signed consent form
- Exclusion criteria:
 - Patients that are discharged and referred to other hospitals
 - Patients admitted in pediatric ward (less than 12 years old)
 - Patients who are not willing to participate (declined the consent form)

3. Study Site

Bhumibol Adulyadej Hospital, Bangkok, Thailand was chosen as the site for this study. The hospital has a variety of wards except psychiatric ward where averages of 200 – 300 patients are discharged monthly. This research had to be a hospital based study to get the study population who were inpatients that were admitted to the hospital system as the health care service provider. 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 different age, sex, types of illness etc. In modern age health services, quality health care is an important aspect of the health care system which attempts to provide the best possible care. This quality should be obtained without compromising patient safety and satisfaction. Patient safety still being the primary goal of the hospital, hospital should achieve these goals by providing quality health care to the patients.

For this reason one needs a strong drive to improve quality in hospital to better care their patients and provide quality care which in turn shall create satisfied patients. When survey of this type is performed, it helps hospital management identify opportunities for improvement and in rewarding departments who receive superior patient satisfaction feedback.

Finally the researcher would like to consider that a good public health care system is where you have appropriate health care delivery system which yields good outcome and satisfied patients.

4. Sample Size

The sample size for this study was obtained from all patients who have consented to take part in this study that were admitted and discharged from the hospital. The sample size consisted of all consented patients admitted as inpatients in the hospital for the 30 day time period of the study duration which started on 22nd of February 2008 till 22nd March 2008.

5. Data Collection Method

Once the College of Public Health Sciences, Chulalongkorn University approved the study proposal, the researcher moved forward with the process of data collection. Data collection method for this study was using the method of 'primary source'. The primary source data was obtained from inpatients on the day of discharge using 'questionnaire' format of data collection. The questionnaire was expected to be read and understood by the patient and then completed by the patients themselves in free will. Questionnaires were based on a few questions about the inpatients assessment of hospital services offered and assessment of general services that were available to the inpatients at the hospital during their length of hospitalization. The study questionnaire was divided into four parts:

Part 1 of the questionnaire addressed basic demographic information of inpatients.

Part 2 of the questionnaire addressed issues such as choice of hospital, advice on

illness received at the hospital, examination results, explanation of treatment plan and operation, advice before discharge and if they know the physician who treated them at the hospital.

Part 3 of the questionnaire addressed issues such as cleanliness, convenience, physicians and nurses' - ability, examination skills, responsiveness, attention to take care, manner, other staffs coordination, cooperation, manner and the overall satisfaction with hospital care. Each of these questions in part 2 had a minimum score of 'Very Bad' (Lowest Level of Satisfaction) and the maximum of 'Very Good' (Highest Level of Satisfaction).

Part 4 of the questionnaire addressed the inpatients individual preference of if they would recommend this hospital to friends and family and if they personally would return back to this hospital for care in the future. Finally the questionnaire ends with an open-ended question where the patients were asked to suggest three most important quality of services need improvement in this hospital if any.

Consented inpatients were then requested to complete the questionnaire and seek help if needed from the trained nurses. Once the questionnaire was completed the patients were asked to put the questionnaire inside a brown envelope and returned. Trained nurses were onsite for help in assisting the patients if they had any questions regarding the questionnaire.

6. Data Analysis

Once the data collection part of the study was completed, questionnaire was collected and compiled for data analysis. All the collected questionnaires were divided into three groups depending on the length of stay (LOS) at the hospital. Once they were separated according to the groups they were further coded for tracking purposes.

Each of the questionnaires was given a unique number according to the group they belong to depending on the length of stay (LOS). For example code '01-001' meant:

- The first set of two numbers '01' meant it was from group 1 (length of stay of 1 – 2 days)
- The second set of three numbers '001' meant it was the first sample from group 1

Likewise the first set of two numbers '02' meant group 2 (length of stay 3 – 5 days) and '03' meant group 3 (length of stay 5 days or more). And the second set of three numbers increased as more patients were added to that specific length of stay group.

Once the questionnaires were divided into each group and coded, the researcher entered the data into an excel spreadsheet where following practice was undertaken:

- Each of the answered questions from the questionnaire were given a value of “1”
- Each of the unanswered questions from the questionnaire were given a value of “0”
- Open ended questions (Question # 10, 33) were reported “as is” except for the ones that had no reply where a value of “none” was entered
- Question # 10 inquiring about salary where replies were given in range was averaged to be entered into the spreadsheet

Following the above steps in a meticulous manner where entries were double checked for accuracy the researcher then created tables and graphs for display of the data that was obtained from Part 1 through Part 4 of the questionnaire.

Part 1 of the questionnaire titled “A few questions about yourself” illustrated general characteristic of the patients that have been admitted to the hospital as inpatients.

Questions in this part consisted of the following items:

- 1 Gender
- 2 Age
- 3 Martial Status
- 4 Education
- 5 Occupation
- 6 Income
- 7 Method of payment for hospital service
- 8 Number of days admitted in the hospital [Length of Stay (LOS)]

9 Inpatient department service received at the hospital

10 Disease treatment received at the hospital during stay

Part 2 ‘Assessment of service the patient received at this time of hospital stay’ had 7 questions which were analyzed individually for different groups of patients according to their length of stay (LOS).

Part 3 ‘Assessment on the general services offered at the time of hospitalization’ had 14 questions where the patients had to choose either the service was “very good” to “cannot assess”. These 14 questions were analyzed individually for different groups of patient according to their length of stay (LOS).

Part 4 ‘Patients individual assessment of hospital services’ had 3 questions which were analyzed individually for different groups of patients according to their length of stay (LOS). The last question on part 4 was an open ended question where the patients were asked to suggest up to three most important qualities of services that they think need to be improved in the hospital. The open ended answers provided were grouped together to see what were the top three suggestion by most patients.

Further data analysis was performed on some of the variables using the statistical software SPSS 13.0. Fisher’s Exact Test was used for this study to find the association between the few variables and patient satisfaction.

7. Interviewer Training

A hospital nurse from the department of research was the main person coordinating the activities at the study site. The researcher in the first meeting spend time going through the questionnaire with the research department nurse prior to

initiating the study to make sure that she was familiar with the study questionnaire and what the intentions of the questions. Following a detail discussion with the research nurse, the researcher accompanied the research nurse to each of the 23 wards in the hospital from where patients' samples would be collected for the study. The research department nurse explained the head nurses' and associates of the 23 wards in detail about the questionnaire and its intention. This was done in case the patient was not clear with the question and assistance could be provided by the trained nurses in various wards of the hospital.

8. Confidentiality Protection

All information collected during this study will be protected by the researcher with utmost care. Information collected during this study will be respected and reported 'as is' without any manipulation for vested interest. The study findings will be used strictly for this purpose of study and nothing more.

9. Validity/Reliability of the Questionnaires

Validity and reliability of the questionnaire was not performed as this set of questionnaire had already been used in a prior study titled "Patient satisfaction in Bangkok: the impact of hospital ownership and patient payment status". The previous study from where this questionnaire was obtained had been conducted in a similar setting as this study which was conducted in multiple hospital settings in Bangkok, Thailand. (Tangcharoensatgien et al., 1999).

Nevertheless a meticulous check was performed before using the questionnaires for this study with consultation with the thesis advisor to make it simple yet complete to be able collect the needed information for this particular study.