

## CHAPTER 4

### DATA EXERCISE

#### Pilot study In Rajavity Hospital.

##### Introduction.

The pilot study was conducted in Rajavity Hospital which is a public hospital. It has a 1200 inpatient bed capacity and 884 staff working. There are approximately 2500, outpatients per day. The OPD (Out Patients Department) No.14, the general OPD, sees approximately 250 outpatients per day and, it was the area chosen for this study in order to get a wide range of patients. The permission to conduct this small scale study for purely academic purpose was obtained through Dr. Suravit Techatuvanan. The OPD Sister Incharge and the Medical Officers are very helpful and responsive during the course of my study from 11th March 1996 to 30th March 1996.

The main purpose of this study was:

1. To test the data collection instruments of a proposed study in order to take corrective measures for clarity, readability, and suitability of the instruments.

2. To prepare dummy tables for the data exercise in my study.

3. To explore possible conclusions and recommendations from the research study to prepare for the proposed action research.

#### Methodology:

Sample population: The sample population of the pilot study consists of purposively selected patients, doctors, and nurses from the OPD No. 14 in Rajvity hospital.

Sample size: Ten patients and five staff from Rajavity Hospital.

The respondents are selected by Purposive random sampling i.e. the patients who could understand English language were chosen and similarly with the staff. The researcher introduced himself and the purpose and the objectives of the study to the respondents individually. The respondents were chosen based on their willingness to joined in the study. Few of the respondents refused to joined the study on personal reasons, such as, lack of time, urgent work at home, disturbance by the baby etc. It was quite difficult to get the respondents who knew English language and that is one of the reasons why the sample size is small. Similarly the staff were introduced to the researcher and the proposed study in terms of its purpose and the objectives. Only the

staff who agreed to join the research study were chosen as respondents.

Instruments used: Observation, Questionnaires, Interview.

I. Observational study in OPD No.14. The patients and attendants, the staff, were carefully observed in terms of their interactions, behavior, and attitudes to obtain some key factors which seem to be important for causation of long waiting time in the OPD and patient satisfaction with the services. The affect of environment including infrastructure and the climate of the OPD was observed carefully. The taxonomy of the OPD No. 14 in terms of patients, staff and the infrastructure was done through observation. Certain important areas like what the patients do while waiting for the services, how they interact with themselves and the staff, how they respond to the climate of OPD, how the staff interact with patients, who are these patients, why they come to OPD, are all of them sick or they came for something else, do they look happy, sad or in hurry etc.

The other factors like the effect of surrounding such as comfort of waiting room, space, temperature, audio-visual, news papers, telephones and health education materials etc. on the patients while waiting were noted as it exists in the real situation.

II. Personnel interview of ten patients who could speak English language and five staff including the administrators. The questionnaires are used which focuses on the perception of problems in the OPD, causes of long waiting time, level of satisfaction with the services in the OPD. It takes approximately half an hour to four hours to complete the forms depending on the type of the patient and the questionnaire form.

### III. Time Motion Analysis.

Five patients were closely followed through the entire OPD process and the actual time taken at each point of the process is measured. It takes approximately one hour to four hours to complete this form depending on the type of the patient who needs various investigations. The patients were followed individually without their knowledge of being followed. The researcher sat at a distance and moved along with the patient from one service point to the other. Time was recorded with a casio stop watch at each service point. At one time the patient left the OPD in the middle of the process and never came back again, probably he had other priorities to be attended.

## Findings.

### 4.1 Observation in OPD:

The observational studies in OPD No.14 shows that there is adequate space and seats in the OPD. The temperature is comfortable, there were news papers which keeps some patients occupied while waiting for services, some patients are busy with the public telephones, some are busy filling the registration forms. There appeared to be no very serious cases waiting in the OPD. Few patients seemed to be lost and were moving from one place to another looking for assistance. Some of the patients who are waiting for the doctors are kept occupied by 3 nurses who check the vital signs before being seen by the doctors. This process seemed to apparently reduce the perception of long waiting time in front of doctors' chambers.

From all these events I find that certain factors like comfort of waiting area, keeping occupied while waiting, information available while waiting and attitude of the staff are important to analyze the causes of long waiting time, and patient satisfaction with the services.

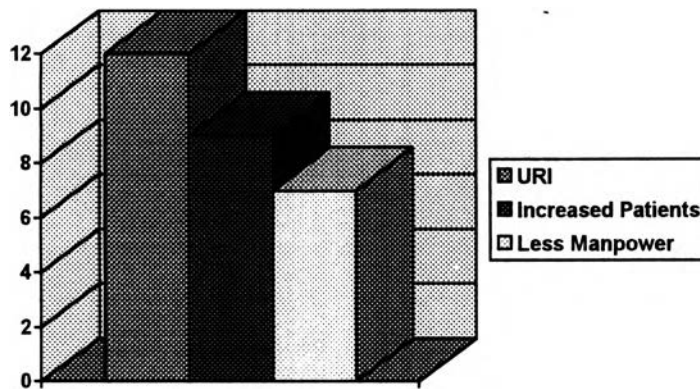
### 4.2 Perception of the problems by the staff and the patients.

The staff and the patients were asked to write three main problems in the OPD and three main causes of long waiting time in the OPD from their own perception or experiences. The result shows that the perception of problems and causes are different for the patients and the staff as shown in (Figure 1-4).

The main problems in OPD.

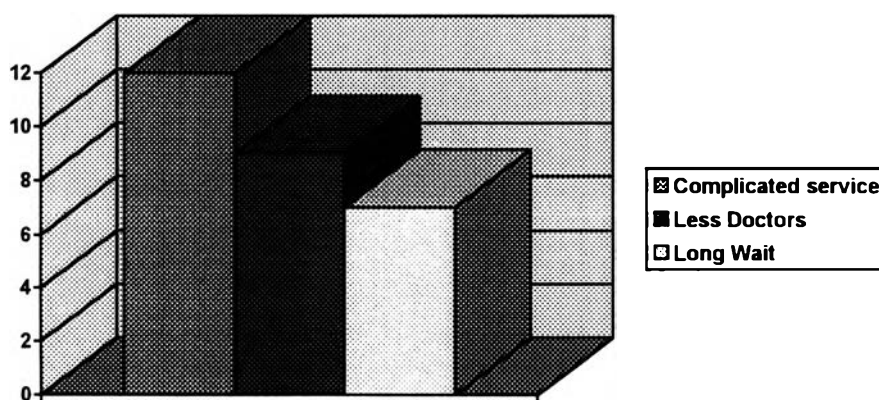
(A) Staff perceptions of problems in the OPD.

FIGURE 4.1



(B) Patient perceptions of Problems in OPD.

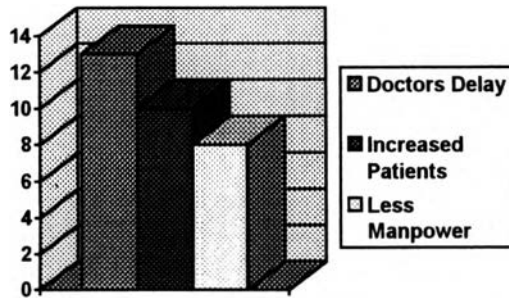
FIGURE 4.2



Main causes of long waiting time in OPD.

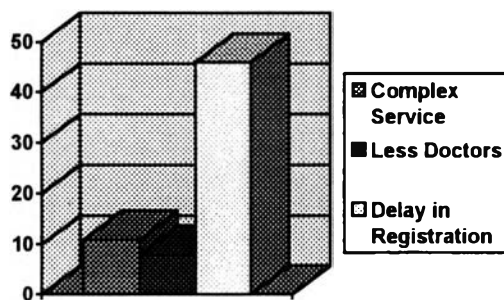
(A) Staff perceptions of causes of long waiting time.

FIGURE 4.3



(B) Patient perceptions of causes for long waiting time.

FIGURE 4.4



This data shows that the patients have to wait a long time to avail a short service at the pharmacy and registration. Similarly the patients have to wait longer in physicians section than other areas.

It is not necessary that the patients have to wait long for a service that takes longer time and vice-versa. At the same time logically it is true that the flow of the patient is faster when the service is delivered fast. In the registration and the pharmacy section the service is fast but the waiting time is long. So a detail analysis of the flow process might reveal the "bottle neck" in the process to focus corrective measures.

Age Distribution.

TABLE 4.2

Age	Number	Percentage
15-24	1	10
25-34	3	30
35-44	4	40
45-54	2	20
Over 55	0	0



In this study 70% of the respondents are in the age group of 25-44. So the study result does not cover the whole range of age distribution.

Sex Distribution.

TABLE 4.3

Sex	Number	Percentage
Male	6	60
Female	4	40
No response	0	0

The sex distribution of the study is 3:2 male female ratio which indicates that the study result is more indicative of males than the females.

Occupation. TABLE 4.4

Occupation	Number	Percentage %
Govt. Employee	4	40
Businessman	0	0
Farmer	0	0
Monk	0	0
Student	2	20
Private worker	4	40
No work	0	0
Others	0	0
Total	10	100

The private workers were mostly foreigners working or settled in Thailand. It does not represent a typical Thai national in terms of language, knowledge of the hospital and other socio-cultural factor.

Patient satisfaction survey:

A. Registration section. Respondents rating of the services in %.

TABLE 4.5

Service factors	Total No.	1	2	3	4	5
wait.time	10	20	30	30	20	0
Helpfulness	10	10	20	40	20	10
Politeness	10	0	10	30	50	10
Competency	10	0	20	40	30	10
Comfort of waiting room	10	0	10	50	30	10
Total	10	7.5%	18%	38%	30%	8%

## Findings.

38% of the patients are fairly satisfied with the services mostly with politeness and competency of the staff.

30% of patients are satisfied with the services at the registration section.

27.5% of the patients are dissatisfied at the registration section and it is mostly with the long waiting time and helpfulness of the staff.

## B. Physicians section.

Respondents rating of services in %.

TABLE 4.6

Service factors	Total No.	1	2	3	4	5
Wait.time	10	30	40	20	10	0
Courtesy	10	0	0	40	30	30
Concern to explain	10	0	10	40	40	10
concern to privacy	10	0	0	40	40	20
competency	10	0	0	30	50	20
Total	10	6%	10%	34%	26%	16%

## Findings:

34% of the patients are fairly satisfied with physicians and 26% of the patients are satisfied with the physicians especially with their courtesy, concern to explain and privacy and their competency.

16% of the patients are dissatisfied especially with the waiting time before consulting the physician.

C. Pharmacy section. Respondents rating of services in %;

TABLE 4.7

Service Factors	Total No.	1	2	3	4	5
Wait.time	10	10	40	30	20	0
Helpfulness	10	10	10	40	30	10
Politeness of staff	10	0	10	50	40	0
Concern to explain	10	20	60	20	0	0
Total	10	10%	30%	35%	22.5%	2.5%

## Findings:

35% of the patients are fairly satisfied with the services and 23% of the patients satisfied.

40% of the patients in the pharmacy section are dissatisfied with the services and it is mainly with the waiting time and less concern to explain the drugs.

The hospital management might discuss to further investigate and identify the "bottle neck" in this area.

D. X-ray section. Respondents rating of services in %

TABLE 4.8

Service Factors	Total No.	1	2	3	4	5
Wait.time	10	10	30	40	20	0
Helpfulness	10	0	20	40	30	10
concern For privacy		0	10	30	50	10
competency	10	0	10	30	50	10
Total	10	2.5%	17.5%	35%	37.5%	7.5%

## Findings:

38% of the patients are satisfied with the services and 35% of the patients are fairly satisfied especially with the privacy and competency of the staff.

20% of the patients are dissatisfied mostly with the waiting time for the x-ray.

E. Laboratory section. Respondents rating of services in %.

TABLE 4.9

Service Factors	Total No.	1	2	3	4	5
Wait.time	10	0	30	40	30	0
Helpfulness	10	0	10	40	40	10
concern for privacy	10	0	10	30	50	10
Competency	10	10	10	30	40	10
Total	10	2.5%	15%	35%	40%	7.5%

## Findings:

40% of the patients are satisfied with the services at the laboratory.

35% of the patients are fairly satisfied. It is mainly with the concern for privacy, helpfulness of the staff and the competency of the staff.

18% of the patients are dissatisfied especially with waiting time at the laboratory.

F. Overall rating. Respondents rating of services in %

TABLE 4.10

Service factors	Total No.	1	2	3	4	5
Staff care	10	0	20	40	30	10
Waiting time	10	20	30	30	20	0
Overall service	10	10	20	40	20	10
Total	10	10%	23.3%	36.7%	23.3%	6.7%



Overall findings:

37% of the patients are fairly satisfied with the services in the OPD of Rajvity hospital.

23% of the patients are satisfied with overall services.

33% of the patients are dissatisfied with the overall services in the OPD.

Limitations of the study:

1. The result of this study cannot be generalized to other hospitals as the factors considered, such infrastructure, facilities, flow process and manpower are specific to Rajvity hospital OPD No.14 only.

2. The study represents a small proportion of the OPD patients especially those who knew English language, so it does not reflect the perception of general population of Thailand.

3. Due to time and resource constraints and language problems the sample size is quite small for this study. This limits the wide scope of generalization of the study to all patients attending the OPD.

4. The study focuses on only one of the many problems in the OPD, the long waiting time. More in-depth studies of the other problems may be required to obtain a holistic view of the problems to find

appropriate and sustainable solutions to the problems within the available resources.

5. The limitations on the question structure should be considered as it mostly reflects what the service providers think are the factors for long waiting time and patient satisfaction.

Discussion and conclusion:

The methods used in this study were both qualitative and quantitative types. Since it was a pilot study to test the data collection instruments the sampling method and sample size used in this study was based on convenience which cannot be done in the real action research study. The result of this study represents a very small number of patients from a section of OPD, so that it in no way provides a clear picture of the real situation in the hospital. Interpretation of the result represents the idea of only the researcher which further limits the generalization of the study result. In fact, involvement of relevant hospital authorities and experts in the interpretation of the result would give a better picture of the situation.

The result of this study shows that the perception of the problem is different for the staff who are providing the services and the patients who receive the services with few similarities. This may be one of the important reasons why there is a gap between the two leading to dissatisfaction with the

services. In the process of problem solving in OPD it may be useful to include the perception of the patients to obtain a realistic and sustainable solution.

The findings of the study show that the attitude of the staff in terms of politeness, helpfulness, courtesy are upto the patients satisfaction. The competency of the staff and the concern for the privacy of the patients is also satisfactory. The majority of the patients are dissatisfied with the waiting time especially at the physicians chamber and pharmacy section. This is not only the perception of the patients, but is true on actual measurement of the time spent at this points through time motion analysis. The hospital management should focus more attention to identify the "bottle neck" in the flow process at these points.

While the overall service satisfaction of the patients in the OPD of Rajvity hospital is good there is ample room for improvement especially to reduce the long waiting time.

#### Recommendations:

The recommendations were made purely for academic purposes as mentioned in the purpose of the study. It may be noted that if the above conditions were true then the following recommendations can be made based on the result of the pilot study.

1. The Hospital management may consider to focus on reducing the long waiting time at the pharmacy section and in front of physicians chamber.

2. The service efficiency at the pharmacy can be improved by encouraging the staff to be more concerned to explain the drugs rather than just handing over the drugs, especially to the patients who are illiterate or those who do not know how to read the levels on the packet.

3. Since the study shows that the perception of the problems is different for the staff and the patients, involvement of the patients through focused group discussions or other brainstorming sessions may be helpful to identify the problems and alternative solutions in the OPD.

4. Shortage of manpower especially the doctors are repeatedly pointed by both staff and the patients as a problem in the OPD. The hospital management should review the number of doctors in OPD and consider alternative solutions like triage system to screen the patients with other paramedical such as nurses and health assistants.

5. One of the perceived problems by the patients is complicated service system in the OPD. The hospital management team should focus on reducing the unnecessary processes in the flow of patients such as payment in many areas and show papers in various counters. The sign boards and posters to guide the

patients in the OPD helps a lot to create a perception of less complicated service system. (Lardsin Hospital Director says he found it quite successful in managing the flow process of the patients).