"A STUDY ON WAITING TIME OF PATIENTS IN PEDIATRIC OUTPATIENT DEPARTMENT IN SELECTED HOSPITAL"

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ABSTRACT

Patients' waiting time in the OPD has been identified as the length of time from when the patient entered the name in outpatient department to the time the patient actually enters the physician's room. Pediatric OPDs are considered as the window to hospital services and a patient's impression of the hospital begins at the pediatric OPD. **Objectivess:** The average time taken from when the patients register in out-patient department till the entry of the pediatric ENT OPD's consultant's room, to suggest how this waiting time can be reduced and it will increase patient's satisfaction. **Results:** The waiting time of 40 patients in pediatric ENT outpatient department of chord road hospital has been assessed. The study results showed that 24 patients in pediatric ENT outpatient department of chord road hospital have been waiting

for 15-20 mins from the time of registering to till the entry of the physician's room. 16 patients in pediatric ENT outpatient department of chord road hospital have been waiting for 25-35 mins from the time of registering to till the entry of the physician's room of Chord Road Hospital Pvt.Ltd., Bengaluru. The association between observation day and waiting time of respondents revealed that 60% of the respondents are waiting for 15-20 mins from registration to till entering of the pediatric ENT OPD,s room and 40% of the respondents are waiting for 25-35 mins from registration to till entering of the pediatric ENT OPD,s room of Chord Road Hospital Pvt.Ltd., Bengaluru. **Conclusion:** It is necessary to increase the number of health care members in the hospital and to improve health care delivery system to reduce the waiting time of patients and it will increase the patient's satisfaction on health care delivery system. Thus student researcher had a satisfying and learning experience throughout the study.

Keywords: Waiting time, patient, pediatric ENT outpatient department.

INTRODUCTION

"Getting out of the hospital is a lot like resigning from a book club. You 're not out of it until the computer says you,re out of it". ***-Erma Bombeck***

Outpatient department as defined in the UK, a hospital department where healthcare professionals see outpatients, which consists of consulting rooms and support areas, e.g. nurses station, treatment rooms, and waiting rooms. Outpatient departments are often physically located near support services (e.g. X-ray, ECG, surgical appliance department, pharmacy etc.[1]

In another way we can say that outpatient department is a hospital department/unit where non urgent ambulatory medical care is provided.[1] Outpatient department patient is a patient who receives treatment at a hospital, as in an emergency room or clinic, but is not hospitalized.[2]

Patient waiting time has been defined as 'the length of time from when the patient entered the OPD to the time the patient was actually seen by the consultant. The goal of every department of the hospital is to furnish the patient with the best of service at the most economical cost and the outpatient department is no exception, which is one of the most extensively used therapeutic arms of the institution. [3]

Out Patient Department is the mirror of the hospital, which reflects overall functioning of the hospital, being the first point of contact between the patient and the hospital staff. Nowadays OPD services of majority of the hospitals are facing queuing and waiting time problems that is resulting into patient dissatisfaction. Waiting for consultation and getting investigations done in the hospital is one of the main reason behind patient does not want to avail the services of that particular hospital. Provision of quick and efficient services is only possible with optimum utility of resources through multitasking in a single window system in the pediatric OPD.[4]

Patients waiting time is not the only factor that affects patient satisfaction but it is one of the indexes to evaluate the quality of outpatient services (Sibbel, Urban, & Saam, 2001). The outpatient waiting time is the period of patient from the time of arrival to the hospital till entering to the examination room. Reducing the outpatient waiting time, the hospital should approach through basic interventions. Regarding the first domain, policy makers should

provide the essential procedures and guidelines, so that the waiting time for health care services is reduced to the minimum.[5]

Queues form when the rate of patient arrival at the outpatient department is greater than the service rate. Excessive patient waiting time undermines outpatient department's efficiency. Such delay leads to patient dissatisfaction and thus may eventually result in loss of patronage in a competitive hospital. Therefore, there is a need to carry out a systematic study on patient waiting time in a outpatient department, with a view to identify the factors that affect waiting time and recommend ways of minimizing the delay.[3]

The main problem related to the outpatient waiting time is obtained from three main factors (Abdullah, 2005):

1) People (consumers).
2) Organizations providing health services (suppliers).
3) Environment.

Nowadays in the hospitals most of the time organizations themselves refer to the second factor which is involved and plays a role in creating waiting time, and there should be greater emphasis on hospitals to reduce the waiting time.[5]

Pediatric OPDs are described as the face of any hospital, as it is often one of the first points of contact between patients and the hospital. The impression about a hospital's pediatric OPD often influences the patients' sensitivity towards the hospital. Therefore it is essential to ensure that pediatric OPD services provide an excellent experience to the customers. With the increase in the outpatient volume and patient flow, there may be an increase in the blockages, which in turn, increases the waiting time. Patients perceive long waiting times as barriers to actually obtaining services.[6]

Reducing waiting time and making sure those patients receive the right care at the right time; will have a significant beneficial effect on the quality of care patients receive. In turn, this will improve patient outcomes, reduce the cost of care and improve the hospital demand.[6]

NEED & SIGNIFICANCE OF THE STUDY

The amount of time a patient waits to be seen is one factor which affects utilization of hospital. Patients perceive long waiting times as barrier to actually obtaining services and keeping patients waiting unnecessarily can be a cause of stress for both patient and doctor.[7]

One of the most important indices of the health care quality is patient's satisfaction and it takes place only when there is a process based on management. One of these processes in the hospital is the appropriate management of the waiting time process.[5]

This study was carried on to know the average time taken from when the patient registers in out-patient department till the entering in the outpatient department and to know the time spent in waiting area. It was an observational study done on patient attending pediatric ENT OPD for a period of one month. Forty children were randomly selected from the population of patients who attended pediatric ENT OPD. Workflow analysis method and stop watch techniques were used to measure patient waiting time. A total of 40 patients were observed in the afternoon. Each patient are waiting for 10-20 minutes.[3]

STATEMENT OF THE PROBLEM

"A study on waiting time of patients in pediatric outpatient department in selected hospital".

Objectives:

1. To know the average time taken from when the patients register in outpatient department till the entry of the pediatric ENT OPD's consultant's room.

2. To suggest how this waiting time can be reduced and it will increase patient's satisfaction.

Operational Definitions:

Waiting time: This is the time that patients spend waiting to receive a service in hospital or health care centre.

Pediatric Outpatient: Outpatient refers to a children that visits the hospital and leaves on the same day immediately after treatment.

Outpatient department: Out-patient department refers to a department that gives the services in the hospital on the same day.

Registering time: This is the time the patient reports to the reception center seeking health care service in out-patient department.

Entering time: This is the time the patient enters in the pediatric ENT OPD's physician's room.

Hypotheses:

H1:-There is significant association between waiting time and selected demographic variables.

MATERIALS AND METHODS

This section deals with the description of the methodology and different steps undertaken for gathering and organizing data for investigation. For any work the methodology of the investigation is of vital importance.[8] It includes study population, sample size, process of study, methods used, duration of the study, information about organization where study is conducted.

- **Research Approach:** A research approach tells the nurse researcher what data to be collected and how to analyze it. It also suggests possible conclusion to be drawn from the data. In view of the nature of the problem selected for the study and objectives to be accomplished, a quantitative research approach was considered as appropriate for the present study.

- **Research design**: According to Polit and Hungler (1999) the term research design refers to the researchers overall plan for obtaining answers to the research questions. In this study, the investigator uses the descriptive design on waiting time of patients in outpatient department of Chord Road Hospital Pvt. Ltd., Bengaluru.

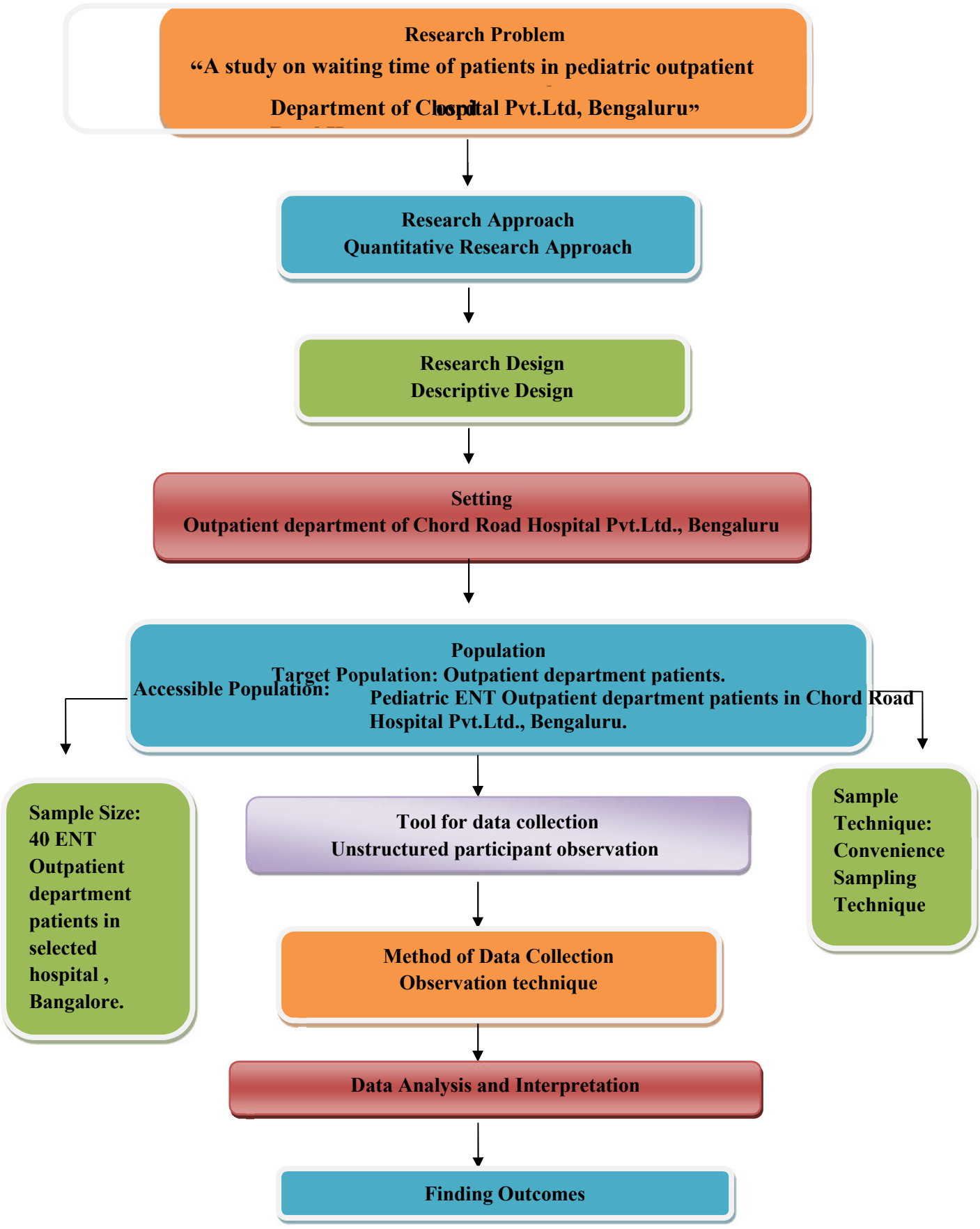

FIG: 2 SCHEMATIC REPRESENTATION OF THE RESEARCH WORK

- **Study population:**

The target population is all the patients who were available in OPD of Chord road hospital during the study period i.e. 700 patients. The target population for the present study is 140 patients who came to visit pediatric ENT OPD of Chord Road Hospital Pvt.Ltd., Bengaluru during the study period. (0-16 yrs age groups)

Accessible population for the present study is 40 male and female children (0-16 yrs age groups) who are available in pediatric ENT OPD of Chord Road Hospital Pvt.Ltd., Bengaluru from the period of registration to till entering to doctor's chamber during specific hours when the student researcher collected the data.

- **Sample size:** The sample size is 40 male and female children (0-16 yrs age groups) of pediatric ENT OPD of Chord Road Hospital Pvt. Ltd., Bengaluru who meet the inclusion criteria of the study.

➢ **PROCESS OF STUDY:**

- **Setting** : The study was conducted in Chord road hospital Pvt. Ltd., Bengaluru.
- **Sample** : Male and female patient of pediatric ENT OPD of Chord road hospital Pvt. Ltd., Bengaluru.
- **Sampling Technique**: Convenient sampling technique entails using conveniently chosen patients of pediatric ENT OPD of Chord road Hospital Pvt. Ltd., Bengaluru as subjects who were available at the time of data collection. Hence convenient sampling technique was found to be appropriate for this study.
- **Variables under study:**

An attribute of a person/ object that varies is called a variable. Two types of variables are identified in this study:-

a) **Research variable:** In the present study the research variable is the waiting time.

b) **Demographic variable:** In the present study the demographic variable includes age, gender, religion, class (upper class, middle class, and lower class), type of family (joint family, nuclear family), educational status, occupation, monthly income.

c) **Tool for data collection**: Unstructured participant observation has been used as a tool with field diary for this project.

- **Method of data collection**: Observation technique has been used.

➢ **CRITERIA FOR SAMPLE SELECTION:**

Sampling criteria is that which specifies the characteristics that the sample of the population must possess. The following criteria are used in the present study to select samples.

- **Inclusion criteria:**

Pediatric Patients who:-

1) Come to visit pediatric ENT Opd
2) Are available at the time of data collection.
3) Can understand Kannada or English.
4) Are willing to participate in the study.

- **Exclusion criteria:**

Pediatric Patients who:-

1) Come for other OPDs.
2) Are not willing to participate in the study.
3) Have already attended for any other study related to waiting time on patients in OPD.

➢ **DATA COLLECTION PROCESS:**

A written permission was obtained from the director of Chord road hospital at Bangalore. Data collection was done from the patients who came to the physician of pediatric ENT OPD of Chord road hospital Pvt.Ltd. Bengaluru and who fulfil the inclusion criteria. After the brief introduction of self, a written consent was obtained from each respondent and was assured of confidentiality of their responds for the study. Data collection was done by selecting 100 patients who came to pediatric ENT OPD of Chord road hospital Pvt.Ltd.at Bengaluru. Duration of data collection was 1 week.

The period of data collection was 19-01- 2016 to 18- 02- 2016. The investigator introduced self to the subjects and explained the purpose of the study. Instructions were given and the tool was administered. Observation was done by diary to record the waiting time of the patient from registering to name to till entering the physician's room of pediatric ENT OPD.

➢ STEPS IN CONSTRUCTION OF THE TOOL:

The following steps were carried out in preparing the tool:

- Related literature was reviewed in preparing the tool.
- Construction with statistician was done for data analysis.

➢ *DESCRIPTION OF THE TOOL:*

The tool organised into two parts:

- **PART I: Demographic data:**

This section of the tool consisted of demographic variable such as age, gender, religion, class (upper class, middle class, and lower class), type of family (joint family, nuclear family), educational status, occupation, monthly income.

- **PART II: Unstructured participant observation has been used as a tool by observing the waiting time of the patient with diary for this project:**

Items were constructed in consultation with experts in the field of management after reviewing literature and non-research literature.

➢ *PLAN FOR DATA ANALYSIS:*

The data to be analyzed is planned on the basis of objective of the study. Descriptive and inferential statistics was used to analyse the data.

- Demographic variable was analyzed by frequency and percentage distribution.
- The waiting time of the patient was analyzed by mean, median, range and standard deviation.
- The association between waiting time and demographic variables was analyzed by using chi-square test.
- The analyzed data has organized and presented in the form of tables, bar diagrams and pie diagrams.

- **Duration of study** : 4 weeks

RESULTS

Ker linger (1995) defines analysis as the categorizing, ordering, manipulating and summarizing of data to obtain answers to research questions.

Result is a process of organizing and synthesizing data in such a way that research questions can be answered and hypothesis tested. In order to get meaningful answer of the research questions, the data must be presented and analyzed in same orderly, so that relationship can be maintained.

This chapter deals with the analysis and interpretation of data collected from 40 patients who are waiting in outside of pediatric ENT outpatient department in Chord road hospital, Bangalore. Tool consisted of section A-Demographic Performa; section B-.Waiting time of patients.

The purpose of analysis is to summarize, compare and to test the proposed relationship and infer the findings. The collected data are tabulated in the master sheet and analyzed by using descriptive and inferential statistics.

The Objectives of the study were:

1. To know the average time taken from when the patients register in out-patient department till the entry of the pediatric ENT OPD's consultant's room.

2. To suggest how this waiting time can be reduced and it will increase patient's satisfaction.

ORGANIZATION OF THE FINDINGS AND PRESENTATION OF DATA ANALYSIS:

- ***Analyzed data is organized and presented in the following sections:***

Section I:

This section deals with the analysis pertaining to the demographic characteristics of patients with respect to age, gender, religion, class (upper class, middle class and lower class), type of family (joint family, nuclear family), educational status, occupation, monthly income.

Section II:

This section deals with analysis pertaining to waiting time of patient in pediatric ENT outpatient department of Chord road hospital Pvt. Ltd., Bengaluru.

Section III:

This section deals with findings related to association between waiting time of patient with selected demographic variables.

SECTION-I

Analysis pertaining to the demographic characteristics of waiting time of patients

TABLE-1: Frequency and Percentage Distribution of Respondents according to gender and Age group

N=40

Characteristics	Category	Respondents	
		Number	Percent
Gender	Male	22	55.0
	Female	18	45.0
Age group (years)	≤ 1	9	22.5
	2-6	11	27.5
	7-12	12	30.0
	13-16	8	20.0
Total		40	100.0

Table-1 reveals the percentage distribution of demographic characteristics of waiting time of patients.

- In relation to gender, majority (22%) of the respondents belonged to male and 18 % of the respondents belonged to female children.
- With regard to age group of patients, 12% of the respondents belonged to 7-12 age groups, 11% of the respondents belonged to 2-6 age group, 9% of the respondents belonged to ≤ 1 age groups and 8% of the respondents belonged to 13-16 age groups.

TABLE – 2

Frequency and Percentage Distribution of Respondents according to Religion, Type of family and Family income

N=40

Characteristics	Category	Respondents	
		Number	Percent
Religion	Hindu	30	75.0
	Muslim	6	15.0
	Christian	4	10.0
Type of family	Nuclear	31	77.5
	Joint	9	22.5
Family income/month	≤ Rs.15,000	11	27.5
	Rs.15,001-25,000	15	27.5
	> Rs.25,000	14	35.0
Total		40	100.0

Table-2 reveals the percentage distribution of demographic characteristics of waiting time of patients.

In relation to religion, majority of the respondents (30%) patients were Hindu, 6% of the patients were Muslim and 4% of the respondents were Christian.

- With regards to type of family, 31% patients were from nuclear family and 9% patients were from joint family.
- In relation to family income per month, 15% of the patients family income were in between Rs.15,001-25,000, 14% of the patients family income were in between >Rs.25,000 and 11% of the patients family income were in between ≤Rs.15,000.

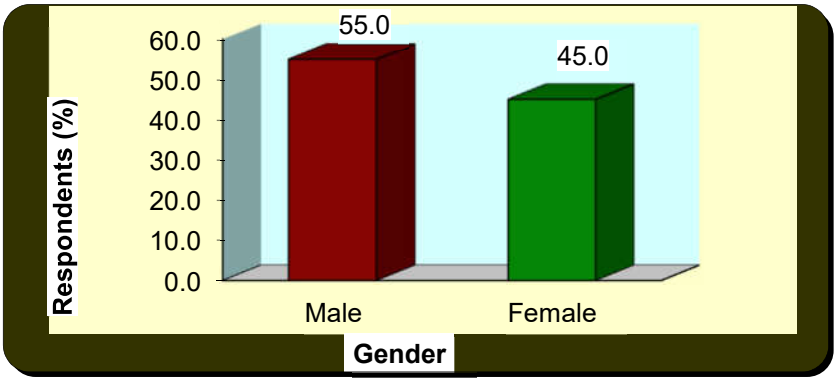

Fig 1: The bar diagram represents the frequency and percentage distribution of respondents according to their gender

The above figure depicts that 55% of the respondents were male and 45% were female children.

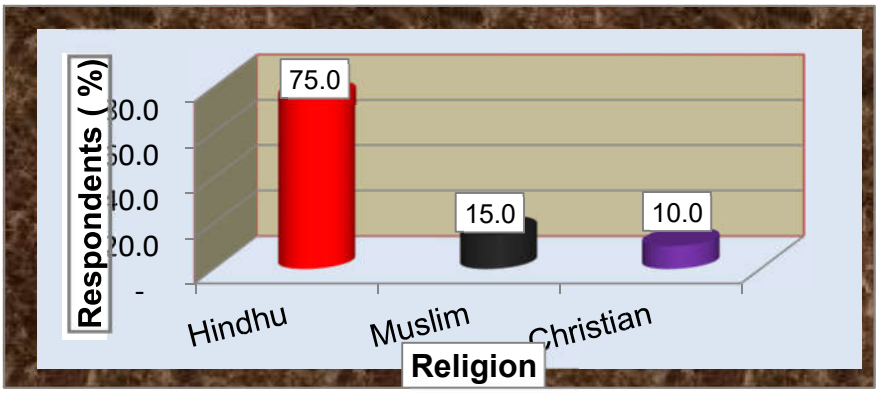

Fig 3: The bar diagram indicates frequency and percentage distribution of respondents according to their religion

The above figure depicts that 75% of the respondents belonged to Hindus, 15% of the respondents were Muslims and 10% of the respondents were Christians.

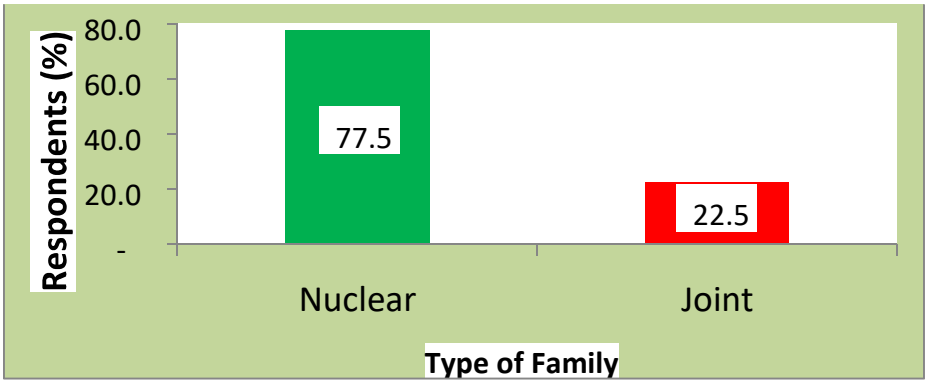

Fig 4: The bar diagram indicates frequency and percentage distribution of respondents according to their type of family

The above figure depicts that 77.5% of the respondents were staying in the nuclear family and 22.5 % of the respondents were staying in the joint family.

TABLE – 3

Response on waiting time with statistical measures

No.	Measures	Waiting time (mts)
1	Mean	22.5
2	Median	20.0
3	Mode	20.0
4	Standard deviation	5.8
5	Minimum	15.0
6	Maximum	35.0
7	First Quartile	20.0
8	Third Quartile	25.0

TABLE-3 reveals that response on waiting time of patients with statistical measures

- In response on waiting time of patients with statistical measures, it was found that mean score was 22.5 minutes, median score was 20.0 minutes, mode was 20.0 minutes, standard deviation was 5.8, minimum measures were 15.0, maximum measures were 35.0, first quartile was 20.0 and third quartile was 25.0.

TABLE – 4

Mean and Standard deviation of waiting time of Respondents

No.	Day	Waiting time (mts)	
		Mean	SD
1	Day-1	20.0	4.5
2	Day-2	30.8	3.8
3	Day-3	21.7	5.2
4	Day-4	20.0	4.5
5	Day-5	19.2	2.0
6	Day-6	20.0	3.5
7	Day-7	26.0	6.5
	Total	22.5	5.8

Table-4 reveals that day wise mean scores and standard deviation scores of waiting time of Respondents.

- In case of Day-1, it was found that mean score was 20.0 with SD (standard deviation) score 4.5.
- In case of Day-2, it was found that mean score was 30.8 with SD score 3.8.
- In case of Day-3, it was found that mean score was 21.7 with SD score 5.2.
- In case of Day -4, it was found that mean score was 20.0 with SD score 4.5.
- In case of Day -5, it was found that mean score was 19.2 with SD score 2.0.
- In case of Day-6, it was found that mean score was 20.0 with SD score 3.5.
- In case of Day-7, it was found that mean score was 26.0 with SD score 6.5.
- Total mean score was 22.5 with SD score 5.8.

TABLE – 5

Respondents waiting time from registration to entry to pediatric ENT consultant room

N=40

No.	Waiting time	Respondents	
		Number	Percent
1	15-20 mts	24	60.0
2	25-35 mts	16	40.0
	Total	40	100.0

Table-5 reveals that Respondents Waiting time from registration to entry to pediatric ENT consultant Room.

- In relation to waiting time of 15-20 mins, the number of respondents (patients) was 24 where it was showing 60 %.
- In relation to waiting time of 25-35 mins, the number of respondents (patients) was 16 where it was showing 40 %.

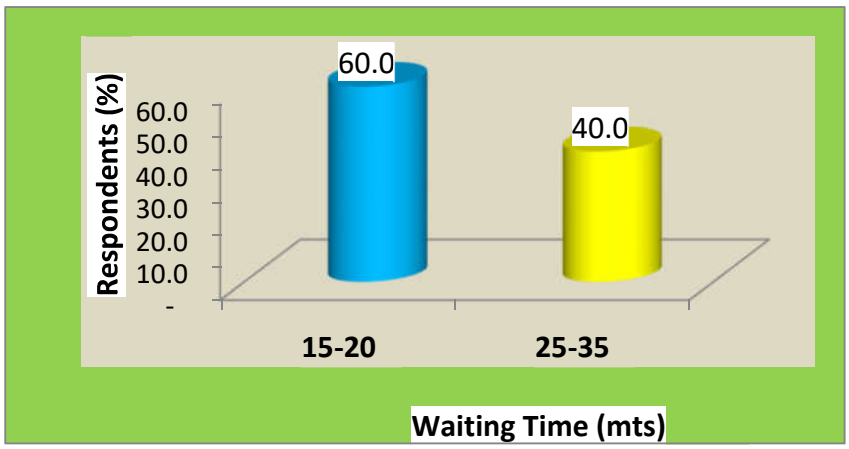

Fig 7: The bar diagram indicates Respondents Waiting time from registration to entry to pediatric ENT consultant room

The above figure depicts that 60.0 % of the respondents' waits for 15-20 minutes from registration to entry of ENT consultant room and 40.0 % of the respondents' waits for 25-35 minutes from registration to entry of pediatric ENT consultant room

TABLE – 6

Association between Observation day and Waiting time of Respondents

N=40

Observation	Sample (n)	Weighting Time (mts)				χ^2 Value
		15-20		25-35		
		N	%	N	%	
1st Day	6	4	66.7	2	33.3	15.00*
2nd Day	6	0	0.0	6	100.0	
3rd Day	6	4	66.7	2	33.3	
4th Day	6	4	66.7	2	33.3	
5th Day	6	6	100.0	0	0.0	
6th day	5	4	80.0	1	20.0	
7th Day	5	2	40.0	3	60.0	
Total	40	24	60.0	16	40.0	

* Significant at 5% Level, χ^2 (0.05,6df) = 12.592

Table-6 revealed that the association between Observation day and Waiting time of Respondents.

In case of observation day, the chi square value was 15.00 at 5% level of significant. This calculated value (15.00) was greater than the table value of Chi-square (12.59) with 6 degree of freedom .Hence, there was significant association between observation day and waiting time of respondents. Thus null hypothesis (H_0) was rejected.

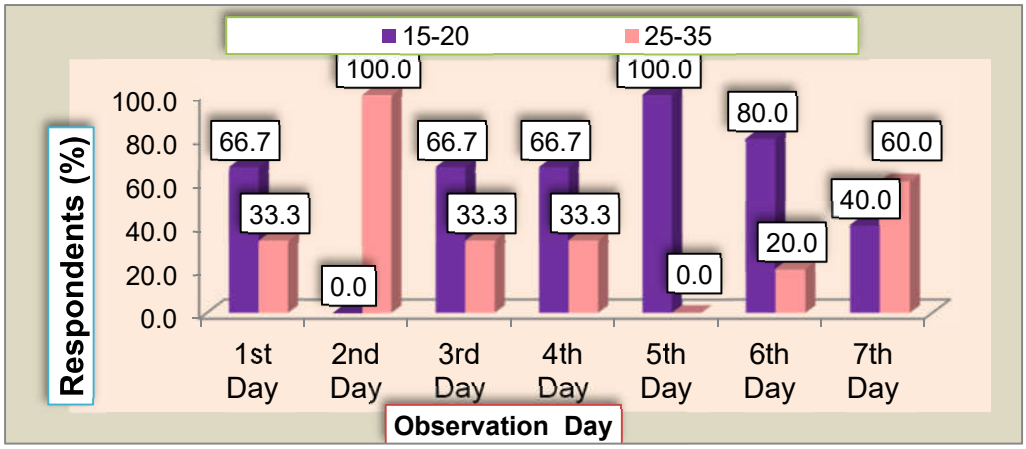

Fig 8: The bar diagram indicates Association between Observation day and Waiting time of Respondents

The above figure depicts that association between observation day and waiting time of respondents :

- On the 1st day, 66.7 % patients were waiting for 15 -20 minutes and 33.3% patients were waiting for 25-35 minutes from the time of registering to till entering to the pediatric ENT OPD.
- On the 2nd day, 0 % patients were waiting for 15 -20 minutes and 100 % patients were waiting for 25-35 minutes from the time of registering to till entering to the pediatric ENT OPD.
- On the 3rd day, 66.7 % patients were waiting for 15 -20 minutes and 33.3% patients were waiting for 25-35 minutes from the time of registering to till entering to the pediatric ENT OPD.
- On the 4th day, 66.7 % patients were waiting for 15 -20 minutes and 33.3% patients were waiting for 25-35 minutes from the time of registering to till entering to the pediatric ENT OPD.
- On the 5th day, 100 % patients were waiting for 15 -20 minutes and 0% patients were waiting for 25-35 minutes from the time of registering to till entering to the pediatric ENT OPD.
- On the 6th day, 80 % patients were waiting for 15 -20 minutes and 20% patients were waiting for 25-35 minutes from the time of registering to till entering to the pediatric ENT OPD.

- On the 7th day, 40 % patients were waiting for 15 -20 minutes and 60% patients were waiting for 25-35 minutes from the time of registering to till entering to the pediatric ENT OPD.

TABLE – 7

Association between Age group and Waiting time of Respondents N=40

Age group (years)	Sample (n)	Weighting Time (mts)				χ^2 Value
		15-20		25-35		
		N	%	N	%	
≤ 1	9	8	88.9	1	11.1	6.25^{NS}
2-6	11	4	36.4	7	63.6	
7-12	12	8	66.7	4	33.3	
13-18	8	4	50.0	4	50.0	
Total	40	24	60.0	16	40.0	

NS: Non- Significant, $\chi^2(0.05, 3df) = 7.815$

Table-7 revealed that the association between Age group and Waiting time of Respondents. In case of age group, the chi square value was 6.25 at 5% level of significant. This calculated value (6.25) was greater than the table value of Chi-square (7.81) with 3 degree of freedom .Hence, there was no significant association between age group and waiting time of respondents.
Thus null hypothesis (H_0) was accepted.

TABLE – 8

Association between Gender and Waiting time of Respondents

N=40

Gender	Sample (n)	Weighting Time (mts)				χ^2 Value
		15-20		25-35		
		N	%	N	%	
Male	22	17	77.3	5	22.7	6.08*
Female	18	7	38.9	11	61.1	

Total	40	24	60.0	16	40.0	

* Significant at 5% Level, χ^2 (0.05, 1df) = 3.841

Table-8 revealed that the association between Gender and Waiting time of Respondents.

In case of gender, the chi square value was 6.08 at 5% level of significant. This calculated value (6.08) was greater than the table value of Chi-square (3.84) with 1 degree of freedom .Hence, there was significant association between gender and waiting time of respondents. Thus null hypothesis (H_0) was rejected.

TABLE – 9

Association between Religion and Waiting time of Respondents

N=40

Religion	Sample (n)	Weighting Time (mts)				χ^2 Value
		15-20		25-35		
		N	%	N	%	
Hindu	30	15	50.0	15	50.0	5.28 NS
Muslim	6	5	83.3	1	16.7	
Christian	4	4	100.0	0	0.0	
Total	40	24	60.0	16	40.0	

NS: Non- Significant, χ^2 (0.05, 2df) = 5.991

Table-9 revealed that the association between Religion and Waiting time of Respondents.

In case of religion, the chi square value was 5.28 at 5% level of significant. This calculated value (5.28) was greater than the table value of Chi-square (5.99) with 2 degree of freedom .Hence, there was no significant association between religion and waiting time of respondents. Thus null hypothesis (H_0) was accepted.

TABLE – 10

Association between Type of family and Waiting time of Respondents

N=40

Type of family	Sample (n)	Weighting Time (mts)				χ^2 Value
		15-20		25-35		
		N	%	N	%	
Nuclear	31	19	61.3	12	38.7	0.10 ^{NS}
Joint	9	5	55.6	4	44.4	
Total	40	24	60.0	16	40.0	

NS: Non- Significant, χ^2 (0.05, 1df) = 3.841

Table-9 revealed that the association between Type of family and Waiting time of Respondents. In case of type of family, the chi square value was 5.28 at 5% level of significant. This calculated value (5.28) was greater than the table value of Chi-square (5.99) with 2 degree of freedom .Hence, there was no significant association between religion and waiting time of respondents.
Thus null hypothesis (H_0) was accepted.

TABLE – 11

Association between Family income and Waiting time of Respondents

N=40

Family income/month	Sample (n)	Weighting Time (mts)				χ^2 Value
		15-20		25-35		
		N	%	N	%	
≤ Rs.15,000	11	8	72.7	3	27.3	2.73 ^{NS}
Rs.15,001-25,000	15	10	66.7	5	33.3	
> Rs.25,000	14	6	42.9	8	57.1	

Total	40	24	60.0	16	40.0	

NS: Non- Significant, **χ^2 (0.05, 2df) = 5.991**

Table-9 revealed that the association between Family income and Waiting time of Respondents. In case of family income, the chi square value was 2.73 at 5% level of significant. This calculated value (2.73) was greater than the table value of Chi-square (5.99) with 2 degree of freedom. Hence, there was no significant association between family income and waiting time of respondents. Thus null hypothesis (H_0) was accepted.

Hence the hypothesis (H1) stated that there was association between demographic variables (Age group, religion, type of family and family income) and waiting time of respondents. So, the null hypothesis (H0) was rejected.

Also the alternative hypothesis (H1) was accepted for gender and waiting time of respondents.

DISCUSSION

The findings of the study are discussed in terms of objectives framed from the study. The discussion brings the research report to closure. A well-developed discussion section "making sense" of the research results.

This is the most important section of any research report. The study intended to observe the waiting time of patients in pediatric outpatient department of Chord Road Hospital, Bengaluru. The overall experience was a satisfying one to the investigator. The investigator found that the patients are waiting for a 15 to 35 minutes from the time of registration to till entry of doctor's chamber in pediatric outpatient department of Chord Road Hospital Pvt. Ltd., Bengaluru. Discussions of the results of data were analyzed as based on the objectives of the study. Observation technique has been selected for the study on the basis of the objectives. The research design adopted for the study was descriptive design. Convenient sampling technique was used to select 40 patients in outpatient department of Chord Road Hospital Pvt. Ltd., Bengaluru. The obtained data were entered into master sheet for tabulation and statistical processing. The findings of the study had been discussed with reference to the objectives and with findings of other related literature/ studies. The analysis of data was organized and presented under the following aspects.

***Section-1*:** Demographic characteristic.

Section-2: Objectives of the study.

The study attempted to test the following hypothesis:

H0:- There is no significant association between waiting time and selected demographic variables.

OBJECTIVES OF THE STUDY WERE:

1. To know the average time taken from when the patients register in out-patient department till the entry of the pediatric ENT OPD's consultant's room of Chord Road Hospital Pvt. Ltd., Bengaluru.
2. To determine the association between observation day and waiting time of respondents.
3. To suggest how this waiting time can be reduced and it will increase patient's satisfaction.

SECTION- 1

DEMOGRAPHIC CHARACTERISTICS OF PATIENTS IN PEDIATRIC ENT OUTPATIENT DEPARTMENT:

In this section, the demographic characteristics of patients in outpatient department of chord road hospital were discussed. 40 patients were selected from pediatric ENT outpatient department of Chord Road Hospital Pvt. Ltd., Bengaluru.

Findings related to demographic variables were discussed as follows:

- In relation to gender, majority (22%) of the respondents belonged to male and 18 % of the respondents belonged to female.
- With regard to age group of patients, 12% of the respondents belonged to 2-6 age groups, 11% of the respondents belonged to 7-12 age group, 9% of the respondents belonged to ≤ 1 age groups and 8% of the respondents belonged to 13-16 age groups.
- In relation to religion, majority of the respondents (30%) patients were Hindu, 6% of the patients were Muslim and 4% of the respondents were Christian.
- With regards to type of family, 31% patients were from nuclear family and 9% patients were from joint family.
- In relation to family income per month, 15% of the patients family income were in between Rs.15,001-25,000, 14% of the patients family income were in between >Rs.25,000 and 11% of the patients family income were in between ≤Rs.15,000.

SECTION-2

In this section, the objectives of the study were discussed. The objectives were achieved by the related and analyzed data.

1) The first objective was to know the average time taken from when the patients register in out-patient department till the entry of the pediatric ENT OPD's consultant's room: The waiting time of 40 patients in pediatric ENT outpatient department of chord road hospital has been assessed. The study results showed that 24 patients in pediatric ENT outpatient department of chord road hospital have been waiting for 15-20 mins from the time of registering to till the entry of the physician's room. 16 patients in pediatric ENT outpatient

department of chord road hospital have been waiting for 25-35 mins from the time of registering to till the entry of the physician's room of Chord Road Hospital Pvt.Ltd., Bengaluru.

2) The second objective of the study was to determine the association between observation day and waiting time of respondents.

The association between observation day and waiting time of respondents revealed that 60% of the respondents are waiting for 15-20 mins from registration to till entering of the pediatric ENT OPD,s room and 40% of the respondents are waiting for 25-35 mins from registration to till entering of the pediatric ENT OPD,s room of Chord Road Hospital Pvt.Ltd., Bengaluru.

3) The third objective of the study was to suggest how this waiting time can be reduced and it will increase patient's satisfaction.

Among 40 participants, majority of the respondents (60.0 %) of the respondents' waits for 15-20 minutes from registration to entry of ENT consultant room and 40.0 % of the respondents' waits for 25-35 minutes from registration to entry of pediatric ENT consultant room of Chord Road Hospital Pvt.Ltd., Bengaluru.

So, it is necessary to increase the number of health care members in the hospital and to improve health care delivery system to reduce the waiting time of patients and it will increase the patient's satisfaction on health care delivery system.

IMPLICATION:

The health professionals including nurses and health care personnel can make significant contribution to reduce the waiting time of patient in pediatric outpatient department of various health organization.

RECOMMENDATIONS:

- A similar study may be conducted on a larger sample for wider generalization.
- A study can be conducted by including additional socio-demographic variables and different methodology that may influence the waiting time of patients in pediatric outpatient department in other hospitals.

- A comparative study can be conducted between community settings and government hospitals.
- A comparative study could be conducted drawing a sample from urban and rural hospitals.
- A similar study can be conducted using other educational methods like demonstration, role play, self-instruction module, structured teaching program etc.
- A similar study may be conducted on effectiveness of structured teaching program on patients waiting time in pediatric outpatient department of hospitals.
- ***LIMITATIONS:***

1) The study is done only among the patients in pediatric ENT OPD of Chord Road Hospital Pvt.

Ltd, Bengaluru.

2) The study sample is limited to 40 samples only.

CONCLUSION

This chapter presents the conclusions drawn, implications, limitations, suggestions and recommendations. The focus of this study was to observe the waiting time of patients in pediatric outpatient department of Chord Road Hospital Pvt. Ltd., Bengaluru.

It brings out the limitations of the study in the picture, the implications are given on various aspects like nursing practice, nursing education, nursing administration and nursing research. It brings out the suggestions and recommendations on various aspects. It also gives an insight to carry on with further studies.

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