This chapter contains the detail of methodology selected by the researcher in order to assess the impact of health care provider participation in management of Hospital OPD on outpatient satisfaction in Tertiary Care Public & Private Hospitals in Jaipur. The first part of the study, a literature is reviewed on Health Care Providers of OPD and Patients of OPD and it is found that in most of the studies where health care providers participated in management the services become improved and patients are more satisfied. Outpatient work is important and interesting if medical and paramedical staff plays a leading role in OPD clinics. It is imperative to have effective co-operation between the medical services and support services in OPD. Doctor’s and staff behavior play important role in patient satisfaction. The chapter deals with the steps which are adopted to achieve the objectives of the study. The steps of the study are discussed in chronological sequence, starting from research design to the details of methodology adopted for the analysis of the different types of response.

This study is an exploratory research based in a large measure on the collection of primary data and also the secondary sources. The study is on “Health Care Providers Participation in OPD Management with Special Reference to Tertiary Care Public & Private Hospitals in Jaipur: An Analytical Study” which particularly covers the OPD of Public Private Hospitals. For the purpose of this study the research design adopted is as follows:

a. In the absence of availability of any research material on this topic information is collected from the following literature. The literature survey has helped to sort out the statement related to Health Care Providers Participation in OPD Management and develop the questionnaire.

b. Articles and research papers related to Health Care Providers Participation in OPD Management and patient satisfaction published in national and international journals.

c. Reference books on hospital management and Health Care Providers Participation in OPD Management.

d. Online reports and e-books
Research Methodology

e. Newspaper and Magazines.

f. Primary data is collected through survey method with the help of the instrument called close ended questionnaire. Data is collected from health care providers and Patients who either work or visit in public & private hospitals OPD of Jaipur.

g. Data obtained is analyzed using SPSS, Microsoft office word, excel and PowerPoint to study and measure the respondents.

3.1: Aims Objectives of Research:

The purpose of research is to discover and ascertain the answers to questions through the application of scientific procedures. Every researcher thinks of his research objectives first. The main objective of research is to find out the fact which is unseen and which has either not been solved or find out.

Aim: To find out whether the Patients are satisfied with the services provided in Out Patient Departments of Private Public Hospitals of Jaipur India that is to know the satisfaction level of patients and at the same time to get the feedback on the services provided in OPD

Objectives: It is hoped that the research finding of the present study will provide an impetus to the speedy care of Patients who visit to the OPD of Hospitals.

- To study the patients’ observations and their satisfaction level from OPD Services.
- To develop Patient Care System with participation of Provider.
- To Determine Quality improvement system for maximum satisfaction of Patients and community Participation in OPD.
- To suggest Plans of action and ensure proper utilization of level of care and facilities provided in OPD.

3.2: Research Problem:

In general research problem is defined as some kind of complexity and intricacy which is experienced by the researcher in the background of practical or theoretical situation for the explanation for the same.
Components of research problem:

- There must be group or individual which has some problem in research.
- There must be some objective to be attained.
- There must be some doubt regarding selection of alternatives in the mind of researcher.
- There must be some environment to which the efficiency pertains.

3.2-1: Statement of the Problem:

A study on “Health Care Providers Participation in OPD Management with Special Reference to Tertiary Care Public & Private Hospitals in Jaipur: An Analytical Study” Knowing about Health Care Providers Participation is not a destructive problem to any organization. If employee participates in Organization work becomes easier. Patients become more satisfied in clinical and non-clinical area of OPD; number of patient increases if health care providers participate in management. The moral and motivation of the employees remain high when they involve in management work. It is hoped that the research finding of the present study provide an impetus to the speedy Patients Care who visit to the OPD. Having this objective in mind the management wants to know the satisfaction level of the Patients and employee of Private and Public Hospitals.

3.3: Hypothesis testing and Hypotheses of Research:

The hypothesis is the central point around which the future research is directed. “A Hypothesis is a tentative generalization assumption regarding the solution to the problem under study”. The hypothesis is an analytical statement which is made in the light of the available facts relating to the problem under study. e.g. Health Care Providers Participation in OPD Management with Special Reference to Tertiary Care Public & Private Hospitals.

The Ho is called as the null hypothesis which assumes there is no difference between the population and the sample mean and the Ha is called as the alternative hypothesis which presents the alternative solution. Hypothesis thus presents a relationship between the different variables. A hypothesis serves as a guide to the researcher and helps him in maintaining a focus on his study.
**Ho:** If the participation of health care providers in OPD is independent of patient satisfaction, then there will be no impact of participation of health care providers in OPD on the rate of patient satisfaction.

**Ha:** If the participation of health care providers in OPD is dependent on patient satisfaction, then the frequency of participation of health care providers in OPD will increase the rate of patient satisfaction.

**Ho:** Participation of doctors, Nurses, Paramedical Staff and Management of OPD is independent of changing the present scenario of Hospital.

**Ha:** Participation of doctors, Nurses and Paramedical Staff and Management of OPD is dependent on all to change the present scenario of Hospital

**Ho:** Improvement in the quality of care to make the Hospital a Profitable Place, is independent of all the objectives like, availability of the services, Patient Satisfaction, Quality improvement system.

**Ha:** Improvement in the quality of care to make the Hospital a Profitable Place is dependent on achieving all the objectives like, availability of the services, Patient Satisfaction, Quality improvement system.

### 3.4: Research Design and Method:

**Research Design:** Different research design can be conveniently describe if we categorize them as:

I. Research design in case of exploratory research

II. Research design in case of descriptive and diagnostic research

**Research Method:** a researcher can use a non-probability or probability method of sampling:

**Non-Probability Method:** Under this method one can adopt: (Convenience sampling, Purposive sampling, Judgment sampling, Quota sampling)

**Probability method:** Under this method one can adopt: (Simple random sampling, Stratified sampling, Cluster sampling and area sampling, Systematic sampling, The Data Collection Design,)
### Research Design and Type of Study

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<th>Research Design</th>
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<td><strong>Exploratory Formulate</strong></td>
<td><strong>Descriptive/Diagnostic</strong></td>
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<tr>
<td>Overall design</td>
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</table>
| Sampling design | Non-probability sampling design  
Under this method one can adopt: (Convenience sampling, Purposive sampling, Judgment sampling, Quota sampling) | Probability sampling  
Under this method one can adopt: (Simple random sampling, Stratified sampling, Cluster sampling and area sampling, Systematic sampling, The Data Collection Design,) |

#### 3.4-1: Research Design and Type:

The research Design adopted in this study was an exploratory method. It includes gathering the information from the Health care providers and patients who visit or work in OPD selected by Convenience Sampling.

#### 3.4-2: Setting of the Study:

The study was conducted at Public and Private Hospitals of Jaipur. Sample Size of 300 is included in this research, 150 from healthcare providers and 150 from patients. The respondents are eligible and selected by Convenience Sampling. The respondents had shown positive interest in filling questionnaire through face to face interview.

a. **Public Hospitals**: Public Hospitals are multispecialty hospitals. The main objective of these hospitals is to provide treatment to all patients without any discrimination either rich or poor. The various services offered in the hospitals are medicine, surgery, ophthalmology, ENT, dermatology; pediatric etc. The data is collected through structured Questionnaires. Respondents in the hospital are (75 Healthcare providers and 75 patients. The total is 150)

b. **Private Hospitals**: Private hospitals are also multispecialty hospitals. The main objective of these hospitals is to provide treatment to all patients without any discrimination in race, color. The various services offered in the hospitals are medicine, surgery, ophthalmology, ENT, dermatology,
Annexures
pediatric etc. Respondents in the hospital (75 Patients from private hospitals and 75 healthcare providers from Private hospitals, total 150)

The researcher visited the OPD of Public and Private Hospitals and collected the data by using structured close ended questionnaire.

3.5: Nature of Universe and Population:
The Population includes in this study were the Health care Providers and Patients who either work or avail the OPD services.

3.5-1: Study Universe:
  i. Patients of Public & Private Hospitals in Jaipur
  ii. Health Care Providers of Public & Private Hospitals in Jaipur

3.5-2: Study Population:
  i. Patients who Visit the OPD of Private & Public Hospitals
  ii. Health Care Providers including Doctors, Nurses and Paramedical Staff of Private & Public Hospitals

Sample consists of 150 health care providers each from Public and Private Hospital and 150 Patients each from Public and Private Hospitals are selected during the study.

3.6: Sample Size and Technique:
For the study purpose Convenience Sampling technique is used to design the sampling frame comprised of Patients who Visit the OPD of Private Public Hospitals, Health Care Providers including Doctors, Nurses and Paramedical Staff of Private Public Hospitals.

Sample Size of 300(150 from Public and 150 from Private Hospital) is taken comprising two separate questionnaires for Health Care Providers and Patients for study purpose.

3.7: Inclusion/ Exclusion Criteria:
3.7-1: Inclusion
  a. People who Visit OPD as Patients of Private Public Hospitals
  b. Health Care Providers Who work in OPD of Private Public Hospitals
3.7-2: Exclusion:

a. People who Visit OPD not as Patients of Private Public Hospitals
b. Health Care Providers who do not work in OPD of Private Public Hospitals

3.8: Data collection: The data collected from Primary sources as well as Secondary sources. A questionnaire was developed for data collection which comprises Close ended questions.

3.8-1: Primary sources: A questionnaire, sample survey/Interview was developed for data collection which comprises both open and close ended questions.

3.8-2: Secondary Source: Secondary data was collected from various sources like:

a. Books, magazines and newspapers.

b. National and International journals and websites

c. Patients Record in OPD

3.9: Research tools and Data Collection:

Instrument in research refers to the tools or equipments used for data collection. The instrument used in this study is developed in the light of review of literature and consultation with the health care providers. The primary tool used in this study was structured questionnaire. The researcher visited the hospitals and collected the data. The questionnaire of health care provider consists of 32 questions and questionnaire of Patient satisfaction consists of 24 Questions. The data is collected through the structured questionnaire, designed for the study mainly consisted of 5 parts.

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<td>Part5: Highly objective based Questions</td>
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3.9-1: Measurement Scale:

Likert scale is being used to measure the responses of the respondents:

a. **Research Instrument**: Ensure that respondents paid attention to questions.

   Most of the questions are 5 point- Likert Scale, designed to identify the effect of each factor of health care providers and Patients in OPD Management of Public Private Hospitals.

   A five Point Likert’s Scale is used to gather responses to the statements. One is given as the strongly agree and five as the strongly disagree. Here three is considered as indifferent. Any score above three is considered as disagreeable and below three is agreeable. Each questionnaire has two sections.

**Data Collection:**

The data is collected through the structured questionnaire having 32 statements on Health care Provider participation and 24 statements on Patients satisfaction. Data is collected through personal and face to face interview from respondents; each section is divided into.

i. **Health care Participation Questions**:

   1. Effect of Health Care Providers participation in OPD.
   2. Effect of Outpatient Department in same Compound.
   3. Effect of Sufficient staff in OPD.
   4. Effect of proper Outpatient services.
   5. Effect of waiting time of patients in OPD.
   6. Effect of OPD Ancillary and Auxiliary services.
   7. Effect of Senior Doctor and Nurse at the time of OPD.
   8. Effect of the facilities provided by the hospital and Management in OPD

ii. **Patients Satisfaction questions are**:

   1. Effect of Working Hours of OPD.
   2. Effect of Services provided by Doctor and Paramedical Staff.
   3. Effect of Services provided by Administrative Staff.
   4. Effect of cost charge to the patient in OPD.
   5. Effect of quality of care and physical facilities provided by hospital.
6. Effect of OPD Ancillary and Auxiliary services in OPD.
7. Effect of Utility Services available in OPD.
8. Effect of Hospital Location and environment on patients visit to the OPD.

3.10: Method of Data Collection:

The method adopted in this study is non-experimental method that was survey based method. Data is collected through personal and face to face interview from respondents who is either working or visiting the OPD. The questionnaire was prepared in English as most of the respondents understand English. Few know only Hindi, for them we translated our questions in Hindi. The number of samples in the study was 300, 150 each healthcare Providers and Patients. The questionnaire was administered on OPD of all Public and Private Hospitals. The perception of Health care providers and patients is asked and found that with participation of health care Providers the performance of OPD is increased and this will have an overall positive impact on hospital.

3.10-1: Statistical Software Package:

Data obtained is analyzed using SPSS 17, Microsoft office word, excel and PowerPoint to study and measure the respondents “Health Care Providers and Patients of Public & Private Hospitals in OPD”.

3.10-2: Statistical Tools:

For the purpose of study and to identify the impact of Healthcare Providers Participation, cross Tabulation and Chi-Square etc. is used for further analysis of the data collected for the study.

3.11: Data Compilation and Analysis:

a. The responses collected through questionnaire are compiled and analyzed with the help of computer using the following software i.e. SPSS 17 for statistical calculation, electronic spreadsheet (Ms-Excel ) for mathematical calculation and Ms- Word for typing, editing and processing table creation etc. For analysis, the responses received from various categories are compiled and rearranged as following.
b. The frequencies in specific option i.e. “Strongly agree, agree, indifferent, disagree, strongly disagree” and “Yes, No, Somewhat, I don’t Know” of the overall responses segment wise/section wise is calculated. Further these responses are arranged in matrix form having columns as Segments/Sections and row as specific options i.e. “Strongly agree, agree, indifferent, disagree, strongly disagree” and “Yes, No, Somewhat, I don’t Know”.

c. The frequencies in specific option i.e. “Strongly agree, agree, indifferent, disagree, strongly disagree” and “Yes, No, Somewhat, I don’t Know” of the overall responses segment wise/section wise is calculated. Further these responses are arranged in matrix form having columns as Segments/Sections and row as specific segments i.e. “Strongly agree, agree, indifferent, disagree, strongly disagree” and “Yes, No, Somewhat, I don’t Know”. The frequencies in specific option i.e. “Strongly agree, agree, indifferent, disagree, strongly disagree” and “Yes, No, Somewhat, I don’t Know” of all the statements seeking definite answer for each section from different segments are calculated.

Further the analyses of responses are carried out according to the following methodology:

i. Reliability Analysis
ii. Demographic Analysis
iii. Cross Tabulation Analysis of the overall responses
iv. Chi-Square Analysis on overall responses
v. Factor Analysis

The number of integration factors from the literature review are being identified which directly and indirectly affect; they are also renamed and rearranged to determine their impact. Under each and every section factors are classified on the basis of the objectives the statements are designed and included accordingly.

3.12: Ethical Consideration and Limitation of the study:

3.12-1: Ethical Consideration:

a. Study is conducted after the approval of synopsis.

b. Informal individual consent obtained, stated the purpose and nature of study interview and interviewers role and confidentiality of the interview.
c. Personnel identification discarded; consolidated data is taken in computer for purpose of analysis.

d. While conducting study general ethical principles observed.

3.12-2: Limitations:

The present study is confined to the Public & Private Hospitals of Jaipur (Rajasthan), as it was not possible for the researcher to include other states or cities due to limitation of time, resources etc. Studies are confined to particular area of Hospitals, the tools and techniques applied in research depend on the researcher resources. The findings of this study are limited by the sample size (300) and the quality of information provided by the Patients and Health care providers surveyed. This is referred to as the limitations of the study.