

SYNOPSIS

Title

Patient flow in Outpatient Department: A Time-Lapse Study

1. Introduction

Outpatient departments (OPDs) in government hospitals are often burdened with high patient loads, leading to overcrowding, extended waiting periods, and suboptimal resource utilization. These factors adversely impact patient satisfaction and overall healthcare delivery.

Time-lapse studies provide an evidence-based approach to analyze patient flow and workflow dynamics by tracking the time taken at each service touchpoint. If there is any delay as compared to the standard time taken, efforts need to be made to enhance operational efficiency and time management.

This study focuses on evaluating studying_the OPD processes of a 300 bedded government hospital to understand how to enhance operational efficiency and time management.

2. Research Question

What is the patient's flow and their time management in OPD?

How can operational efficiency and better time management be done in OPD of a government hospital?

3. Objectives

- To review the Indian Public Health Standards related to managing services in 300 bedded government hospital.

- To assess the time taken by patients at each service point in the OPD, from registration to exit.
- To identify key delays in OPD processes using time-lapse analysis comparing with standard time to be taken.
- To propose practical, suggest ways to increase operation efficiency and time management.

4. Methods

Study

Design:

Descriptive cross-sectional study using time-lapse analysis and workflow assessment.

Setting:

Outpatient Department (OPD) of a 300 bedded government hospital.

Study Population Respondents:

-Primary: OPD patients

- Inclusion Criteria: OPD patients who avail the hospital services.

-Secondary: registration counter staff, consulting doctor, technician, nursing staff and pharmacists.

Data collection methods.

-Observation the patients.

-In-depth Interview the service providers like registration counter staff, consulting doctor, technician, nursing staff and pharmacists.

Study

Tools:

-Data sheet to note time taken for each services from registration to exit by the patients.

Duration

of

Study:

3 months (from 17 march to 17 June)

Sample

Size:

200 OPD patients

Sampling

Technique:

Time-based quota sampling to include patients from peak and non-peak hours on different days.

Data collection Procedure:

- Direct observation of patient movement through OPD service points (registration, waiting, consultation, pharmacy)
- Timing recorded using manual methods or stopwatch apps.
- Interviews conducted with selected OPD staff for workflow insights.

Operational Definitions:

- Time-lapse Study: A method of real-time observation to track time taken by patients across OPD service points.
- Standard Time: Pre-determined or benchmarked time required to complete a specific task or process efficiently. To be established through literature review or expert consultation if not available for specific tasks.
- Observed Time: The actual time recorded for a patient to complete a specific service point.

5.Data Analysis Plan

- Descriptive Statistics: Mean and standard deviation of time per service point.
- Flow Mapping: Use of process flowcharts to visualize bottlenecks.

6. Implications of Research

Improving the efficiency of OPD services in government hospitals has direct benefits for both patients and healthcare providers. The study's findings will offer actionable insights into administrative interventions to streamline workflows, minimize waiting times, and optimize staff deployment. It may also serve as a reference model for other healthcare institutions seeking process improvements through time-lapse methodologies.

7. References

1. Ministry of Health and Family Welfare. National Health Profile 2021. Central Bureau of Health Intelligence; 2021.
2. Mahapatra S, Shanthosh J, Nambiar D, et al. Improving outpatient care in Indian public hospitals: systematic review and design implications. *BMJ Open*. 2021;11(6):e048283.