



“Time Motion Study of The Ground Duty Assistants in Fortis Escorts Hospital, Jaipur”

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Introduction

- Time and motion study have been carried out in healthcare organizations as a tracking study for healthcare professionals in order to check the efficiency of working individuals.
- This study demonstrates the time carried out for each activity performed involving an estimate of ideal time one happens to spend at work.
- Time and motion, two techniques combined where time study developed in the direction of establishing standard times, while motion study evolved into a technique for improving work methods. When combined the study applies to the improvement and upgrading of work systems.

Literature Review

TITLE	AURTHORS	CONCLUSION
1 Where did the day go? A time - motion study of hospitalists	Matthew D. Tipping MA Victoria E. Forth MA Kevin J. O'Leary MD, MS David M. Malkenson BS David B. Magill BS Kate Englert BS Mark V. Williams MD, FHM	Hospitalists spent 17% of their time on direct patient contact, and 64% on indirect patient care. For 16% of all time recorded, more than one activity was occurring simultaneously (i.e., multitasking). Professional development, personal time, and travel each accounted for about 6% of their time. Communication and electronic medical record (EMR) use, two components of indirect care, occupied 25% and 34% of recorded time respectively.
2 A time motion study in the OPD clinic of a rural hospital of West Bengal	"Dr Nirmalya Manna, Dr Md Samsuzzaman, Dr Saikat Das	Mean time taken is maximum (44 min) for both pathological & radiological investigations. Mean total time (entrance to exit) is maximum (106 min)"for those required any laboratory investigations. Mean times in table – 1 were lower (17.19 min) in old or follow up cases than that of new cases (20.50 min). Total mean time was higher in new cases (79.68 min).



Literature Review

TITLE	AURTHORS	CONCLUSION
3 A 36-Hospital Time and Motion Study: How Do Medical-Surgical Nurses Spend Their Time?	Ann Hendrich, RN, MSN, FAAN, Marilyn P Chow, DNSc, RN, FAAN, Boguslaw A Skierczynski, PhD, and Zhenqiang Lu, PhD	A total of 767 nurses participated. More than three-quarters of all reported time was devoted to nursing practice. Three subcategories accounted for most of nursing practice time: documentation (35.3%; 147.5 minutes), medication administration (17.2%; 72 minutes), and care coordination (20.6%; 86 minutes). Patient care activities accounted for 19.3% (81 minutes) of nursing practice time, and only 7.2% (31 minutes) of nursing practice time was used for patient assessment and reading of vital signs."
4 A time-motion observation study to measure and analyse clinical nursing workload in an acute care hospital in Singapore	Mei Ling Lim, Shin Yuh Ang	The majority of the medical RNs' (in-charge role; n = 4) time was spent on documentation (18%) and medication administration (18%); only 12% of their time was allocated to patient care activities. The least amount of time was spent on caregiver and patient education (3%). The RNs also spent 9% of their time on coordinating care Up to 3% of their time was used to transport patients for diagnostic scans and procedures outside the medical ward.



Research question

How does a GDA peddle between
Work related and Non-work-related
activities in a day in Fortis hospital,
Jaipur?



Objectives

- 1) To find the mean daily consumption of GDAs in main lobby and in OPD1 & OPD 2.
- 2) To compare the time consumed in the work related and non-work-related activities by the GDAs.
- 3) To find the mean daily idle time of GDAs.
- 4) To find the time consumed by GDAs in lunch.



Methodology

- ✓ **Study design – Observational cross-sectional study.**
- ✓ **Study population – GDAs of Fortis Escorts hospital, Jaipur**
- ✓ **Sample Size – 13 GDAs.**
- ✓ **Study tool – After conducting literature review a tool was developed specifically for the study (Table 2).**
- ✓ **Duration of study – 13 days.**



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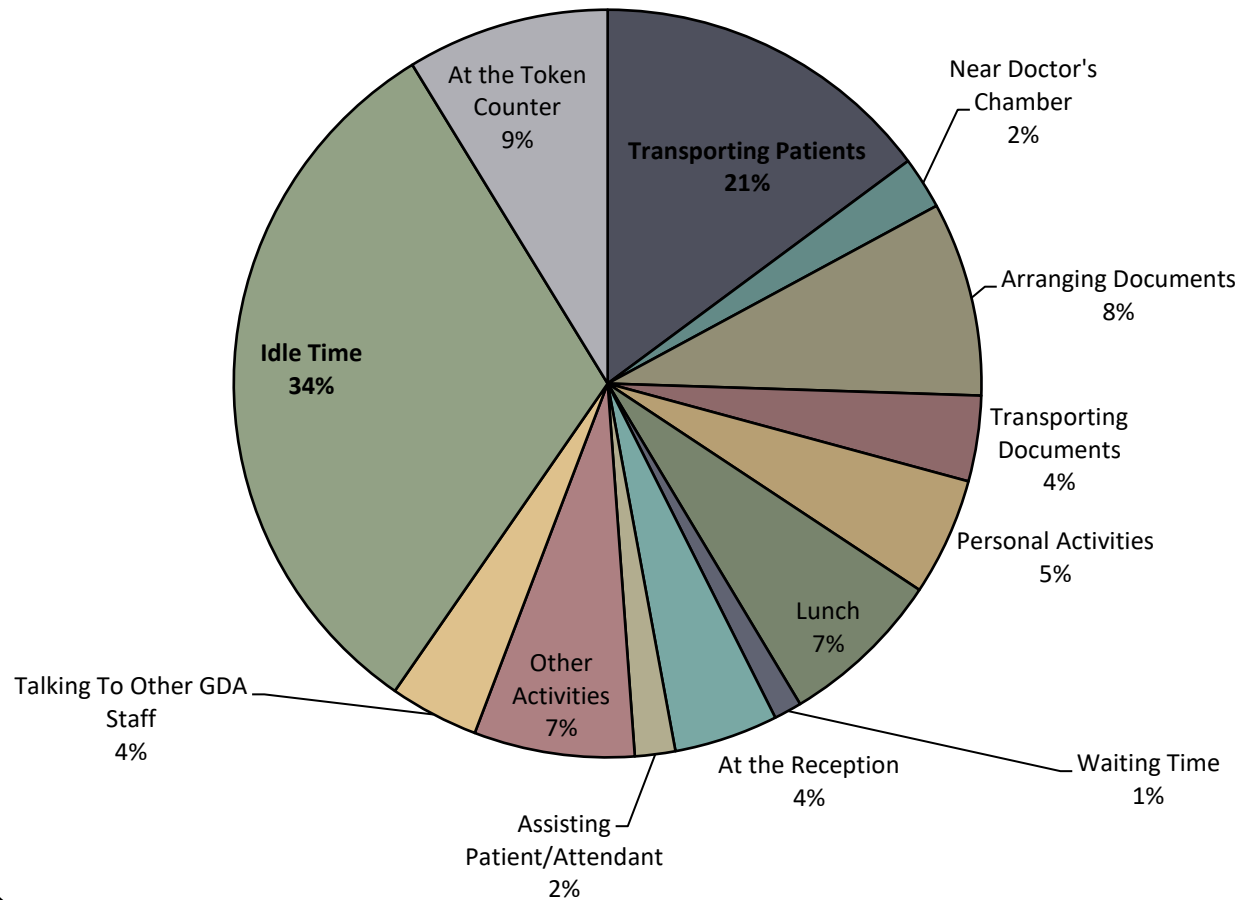
Transporting Patients
Near Doctor's Office
Arranging Doctor's Office
Transporting Doctor
Personal Activities
Lunch
Waiting Time
At the Reception
Assisting Patients/Doctors
Other Activities
Talking To Other Patients
Idle Time
At the Token Counter

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Key Findings

Mean Daily Time Consumption of the GDAs

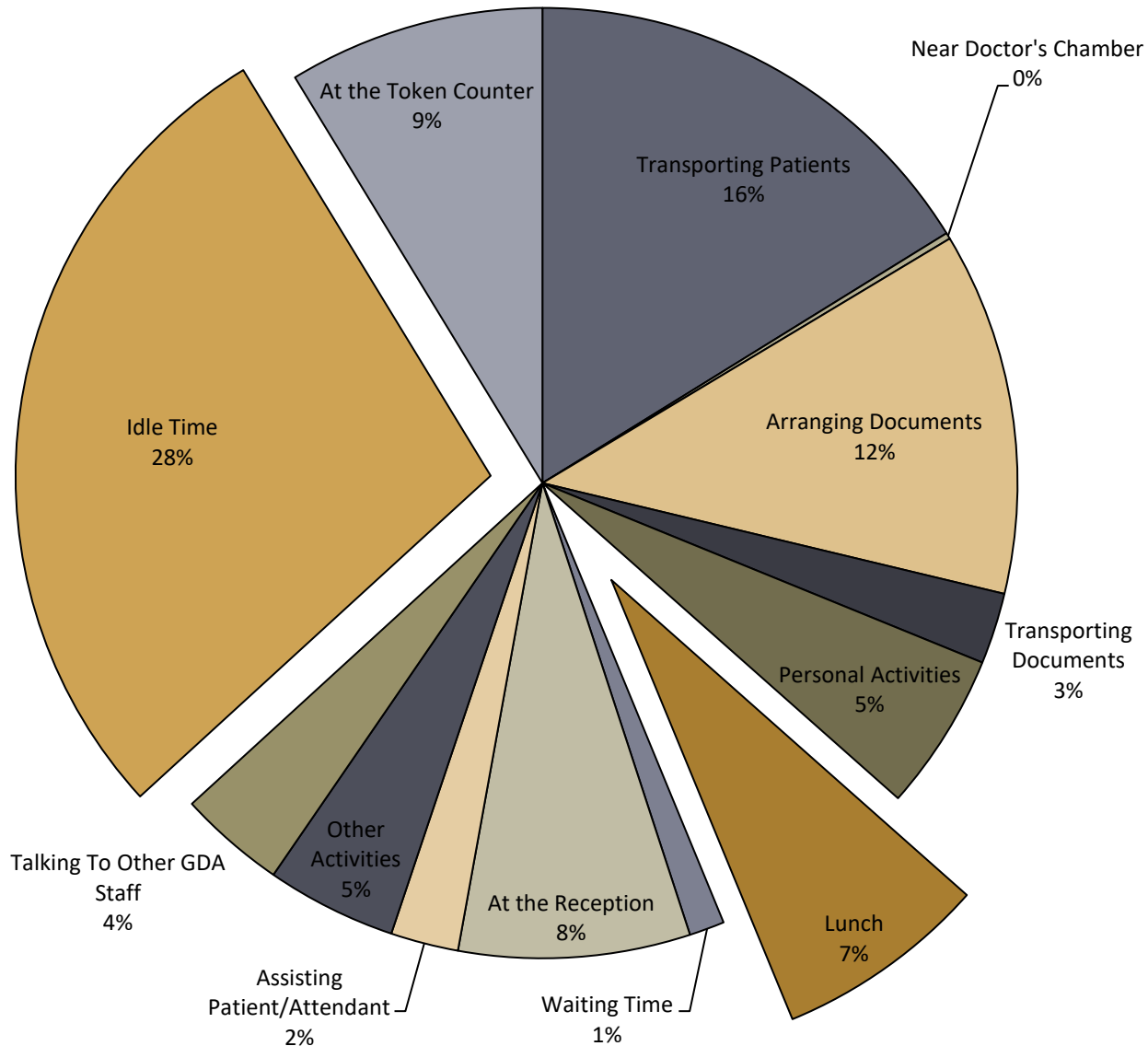


IDLE TIME – 34%

LUNCH – 7%

PERSONAL ACTIVITIES – 5%

Mean Daily Time Consumption of the GDAs

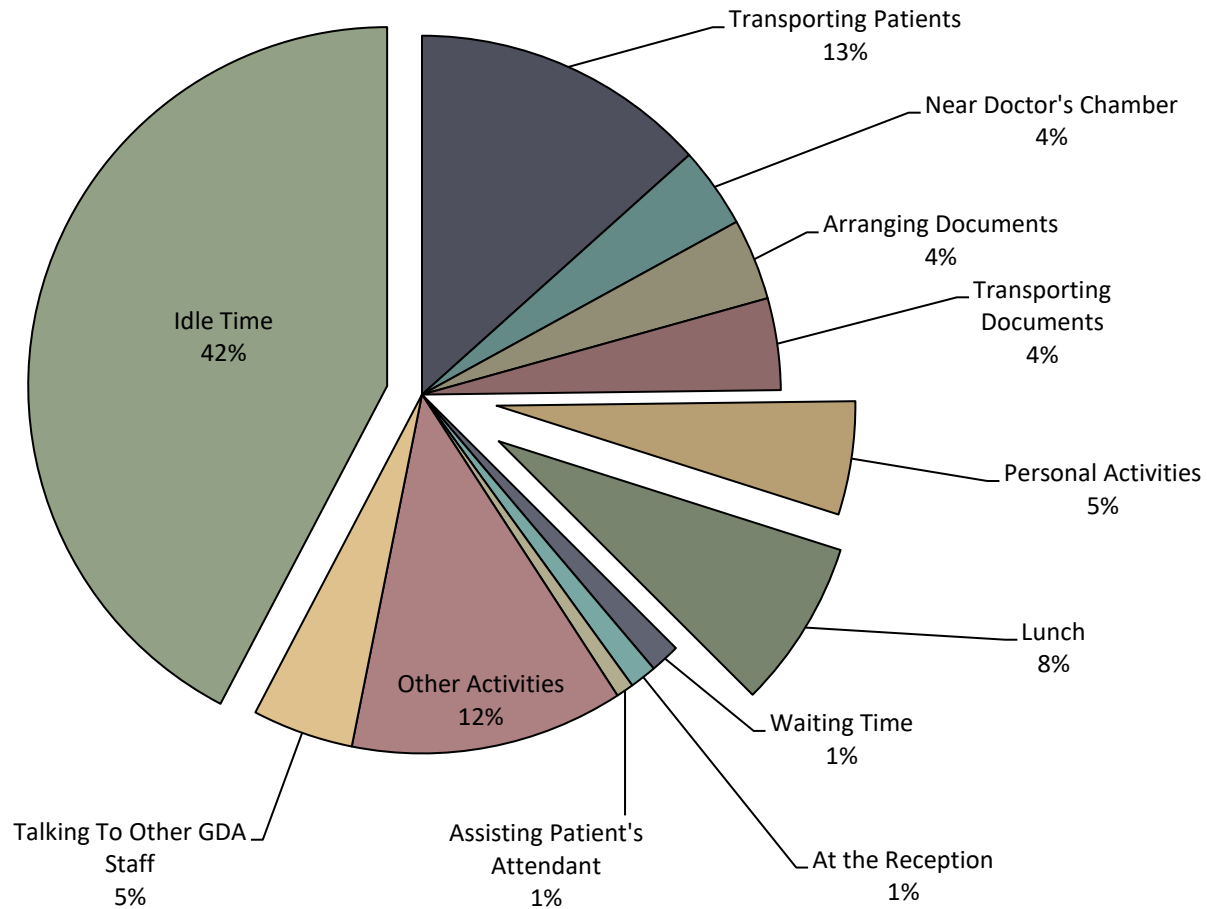


IDLE TIME – 28%

LUNCH – 7%

PERSONAL ACTIVITIES – 5%

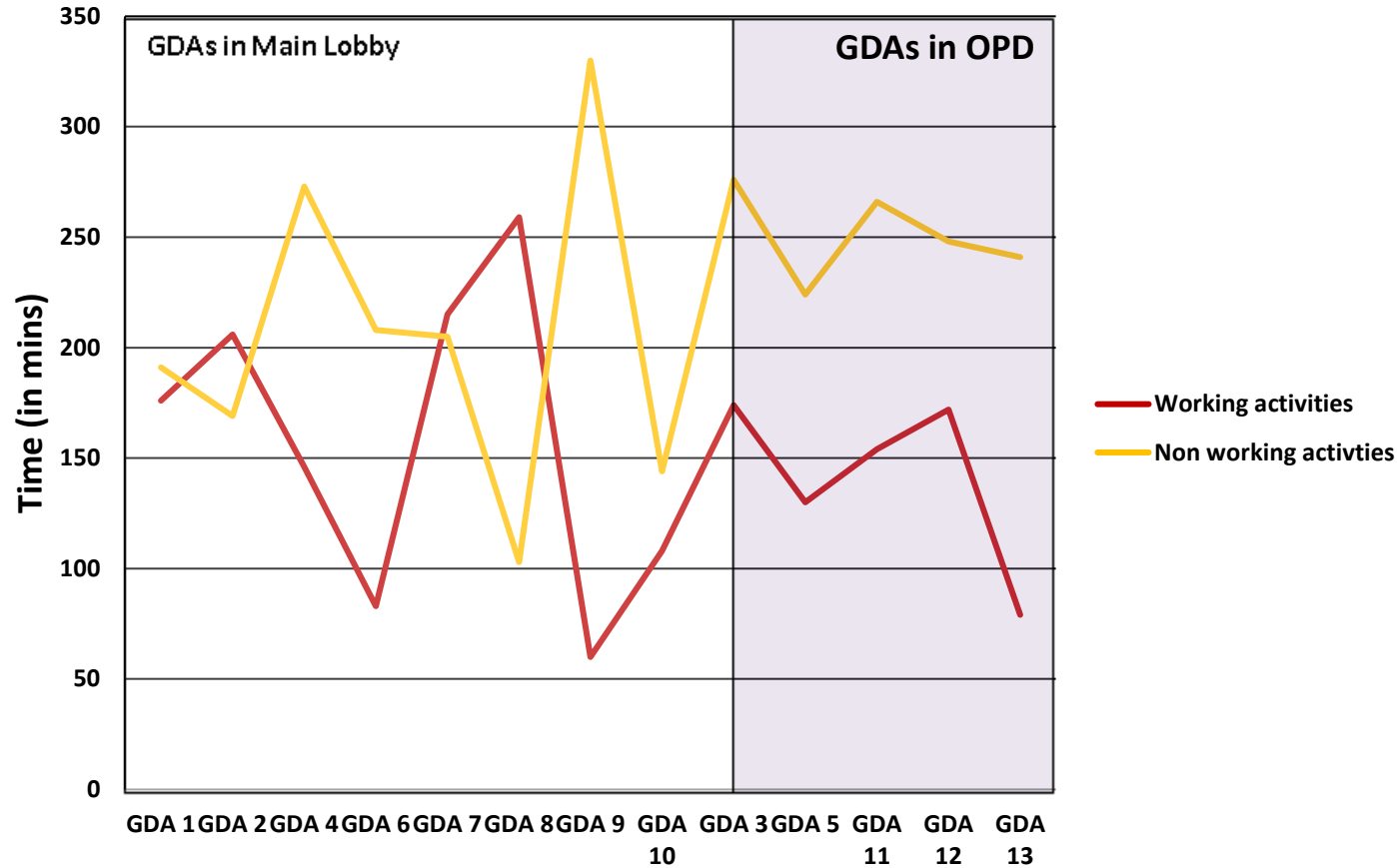
Mean Daily Time Consumption of GDAs in OPD 1 & 2



IDLE TIME – 42%

LUNCH – 8%

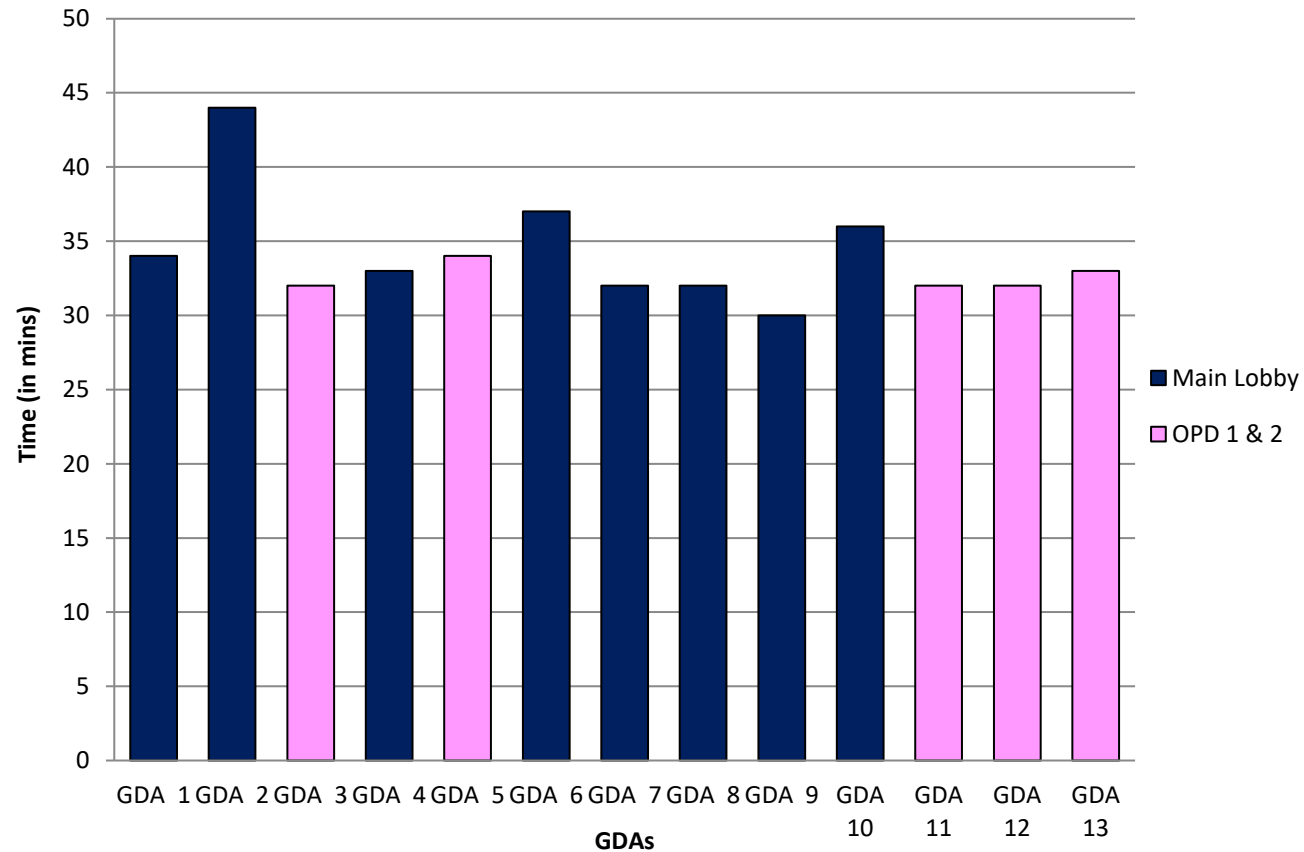
PERSONAL ACTIVITIES – 5%



TIME CONSUMED FOR WORK RELATED VS NON-WORK-RELATED ACTIVITIES OF GDAs

HIGHEST DIFFERENCE – GDA 9

LOWEST DIFFERENCE – GDA 7

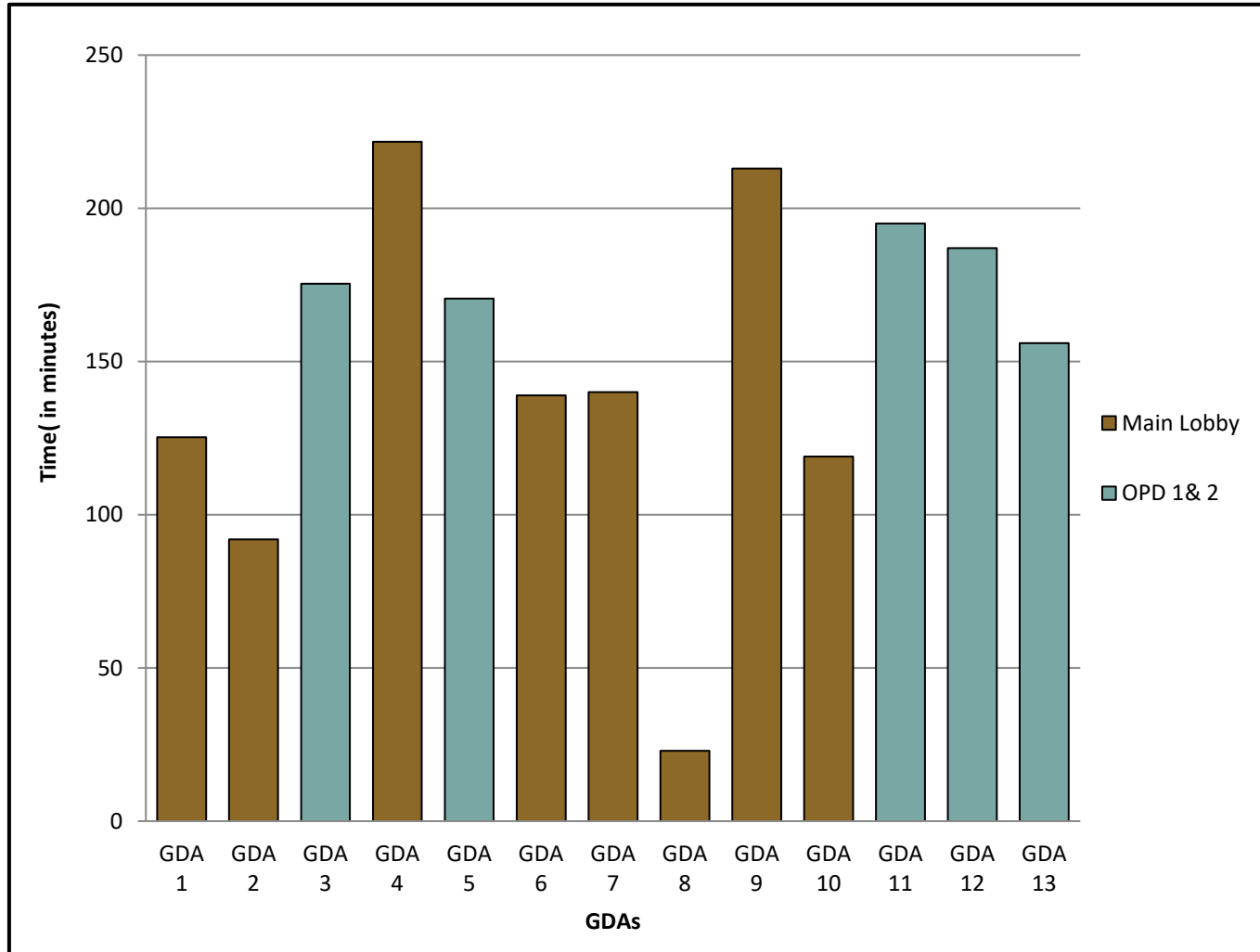


Time consumed in Lunch by GDAs

MAXIMUM TIME– 43 MINS

MINIMUM TIME TAKEN– 30 MINS

MEAN TIME TAKEN – 33 MINS 45 SEC



GDA's Idle Time

MAXIMUM TIME– 222 MINS

MINIMUM TIME TAKEN– 23 MINS

MEAN TIME TAKEN – 149 MINS 20 SEC

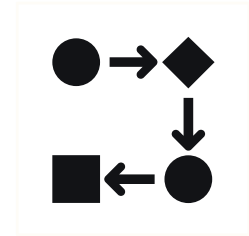
Limitations of the study



The awareness of the study being conducted among the GDAs might have altered their normal performance, which may lead to misleading data.



Limited sample size as observation was done only in main lobby and OPD 1 & 2.



The patient flow differs on day to day basis, thus resulting in difference in the working pattern of the GDAs.



RESULTS

Mean lunch time of GDAs in main lobby	34 minutes and 34 seconds
Mean lunch time of GDAs in OPDs	32 minutes and 36 seconds
Mean idle time of GDAs in main lobby	134 minutes and 10 seconds
Mean idle time of GDAs in OPDs	181 minutes and 54 seconds

- ✓ The mean idle time of the GDAs is 148 minutes and 20 seconds.
- ✓ The mean lunch time of GDAs is 33 minutes and 45 seconds.
- ✓ The mean time consumed for the Work-Related Activities by the GDAs is **150 minutes and 54 seconds**.
- ✓ The mean time consumed for the Non-Work-Related activities by the GDAs in **221 minutes and 20 seconds**.

References

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4. "A 36-Hospital Time and Motion Study: How Do Medical-Surgical Nurses Spend Their Time?"

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6. Time motion study on Wikipedia website

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A decorative illustration of a pine branch with needles, rendered in a light green color, is positioned on the left side of the slide. A thin, dark teal horizontal line extends from the branch towards the right side of the slide.

THANK YOU