

FRONT DESK OPERATING SYSTEM DATA ANALYSIS AT SUKOON HEALTH, GURUGRAM

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1. INTRODUCTION:

1.1 About Sukoon Health-

Sukoon Health is India's most comprehensive hospital for Psychiatry, Psychology, De-Addiction, Rehabilitation and rTMS services having OPD, IPD, Emergency services 24*7. It is clinically governed by the Dept. Of Mental Health and Behavioural Sciences, Fortis Hospitals Ltd.

1.2 OPD-

OPD is defined “as a part of the hospital with allotted physical facilities and medical and other staff in sufficient numbers, with regularly scheduled hours, to provide care for patients who are not registered as in-patients”.

1.3 Front-Desk Operating System-

- Front Desk is a term used for the reception area and its personnel and is the department which handles appointments and gives information to the patients about illnesses, health care resources, or the services provided.
- Front office is a crucial point within a hospital because it functions as a common point of contact across the organization. The front office offers assistance to guests related to the services they require. The department is the nerve centre of the overall organization, as it stores information regarding what is occurring throughout the hospital. (5) It also plays a key role in forming overall impressions of the service provided by the organization. It is generally a part of hospital's customer relationship management infrastructure.
- A hospital operating system allows hospitals to expose the non-value added white space (wait times, delays, and other wasted actions) in operations. Windows, UNIX, and Mac OS are some of the operating systems which are used in hospital.

1.4 OBJECTIVES:

- To find out the Total number of consults done by doctors
- To find out the the no. of days where no OPD was done by the doctors
- To find out the cancelled or delayed appointments (By Patient/Doctor)
- To find out the average waiting time for the consultation
- To find out the %age of Calls Dropped

2.REVIEW OF LITERATURE:

Year	Authors	Title	Research Design	Conclusion	Inference
2019	Antonis Stylianides,John Mantas, Stavros Pouloukas, Zoe Roupa, Edna N.Yamasa ki	Evaluation of the Integrated Health Information System (IHIS) in Public Hospitals in Cyprus Utilizing the DIPSA Framework.(6)	DIPSA evaluation framework assessed the users' perception in 5 categories namely, satisfaction, collaboration, system quality, safety and procedures, using Likert scale and 3 open questions. Correlation between the categories was assessed using the Pearson correlation coefficient, and multiple regression analysis was used to examine the relationship between the demographic characteristics and categories.	All five categories were rated moderately, between 2.5 and 3, by the participants. All categories were correlated ($P < 0.01$). Multiple regression analysis indicated the need for improvement between the professionals (mainly doctors and nurses). The open questions pointed out the need for improvement in all 3 factors examined (Technology, Human Factor, Organization).	The moderately rated categories, in the Cyprus IHIS, suggest that there is a lot of room for improvement. Some interventions are suggested that could positively and simultaneously affect one or more categories.

Year	Authors	Title	Research Design	Conclusion	Inference
2019	Mohammad Ali Abbasi-Moghaddam , Ehsan Zarei , Rafat Bagherzadeh , Hossein Dargahi , Pouria Farrokhi	Evaluation of service quality of clinics at teaching hospitals affiliated with Tehran University of Medical Sciences in Iran from patients' viewpoint. (7)	Cross-sectional study, in Tehran (2017). Random selection of 400 patients from four hospitals. Data collected through questionnaire.	Out of 8 dimensions of health service quality, patients were more satisfied with physician consultation, services costs and admission process. There was a significant relationship between the positive perception of service quality and reason for admission, source of recommendation, gender, education level, health status, and waiting time in the clinics.	Patients' perceptions of physician consultation, provision of information to patients and the environment of delivering services, are the most important determinants of service quality in clinics.
2018	Kuang-Ming Kuo, Chung-Feng Liu, Paul C. Talley, and Su-Ya Pan	Strategic Improvement for Quality and Satisfaction of Hospital Information Systems.(8)	Cross sectional survey, collection of attributive set showing the system quality, information quality, and service quality from 150 physicians at a large health-care system in southern Taiwan.	Two system quality attributes (reliability and response time) were identified as the highest priorities for intervention by low- and high-satisfaction users, Low-satisfaction users further expect improvement of the HIS service quality to take place.	System quality, information quality, and service quality may be used to significantly predict physicians' satisfaction, health-care system should produce coping interventions for those high priorities to enhance the satisfaction of physicians.

Year	Authors	Title	Research Design	Conclusion	Inference
2015	Li et al.	Evaluating patients' perception of service quality at hospitals in nine Chinese cities by use of the ServQual scale.(9)	Descriptive, ServQual scale method was used.	Service quality was found satisfactory in Chinese patients.	Hospitals in China should enhance their awareness and ability to serve their patients.
2011	Abhijit Chakravarty	Evaluation of service quality of hospital outpatient department services. (10)	Cross-sectional study using SERVQUAL. Consumer ratings across 22 items of were collected in paired expectation and perception scores and then service quality gaps were identified and statistically analysed.	Service quality gaps exist with statistically significant gaps across the dimensions of 'tangibles' and 'responsiveness.' The quality gaps were further validated by a total unweighted SERVQUAL score of (-) 1.63.	Significant service quality gaps existed in the hospital OPD services, which needs to be addressed by focused improvement efforts by the hospital management.

3. RESEARCH METHODOLOGY:

3.1 Study Design- Descriptive & Retrospective Study

3.2 Study Setting- Sukoon Health, Gurugram (Haryana)

3.3 Study Duration-Two months i.e.,April 1, 2021- May 31, 2021

3.4 Sample Size- comprised of all the calls (550) made for queries (OPD/IPD/Emergency), consultation (OPD), appointments (OPD).

3.5 Target Population- Patient's OPD Appointments

3.6 Data Collection- The data has been taken from Exotel having the timing, duration, status (missed/completed/call attempt) of the calls throughout the day for 2 months (April-May 2021) and observational checklist was also made for doctor's appointment schedule.

3.7 Inclusion Criteria-

- Data were collected of the patient having OPD Consultation (In-person/Video) between working hours 9 am to 6 pm
- Data collected was only for OPD appointments with Psychiatrists
- Call dropped/missed at the front desk by the personnel

3.8 Exclusion Criteria-

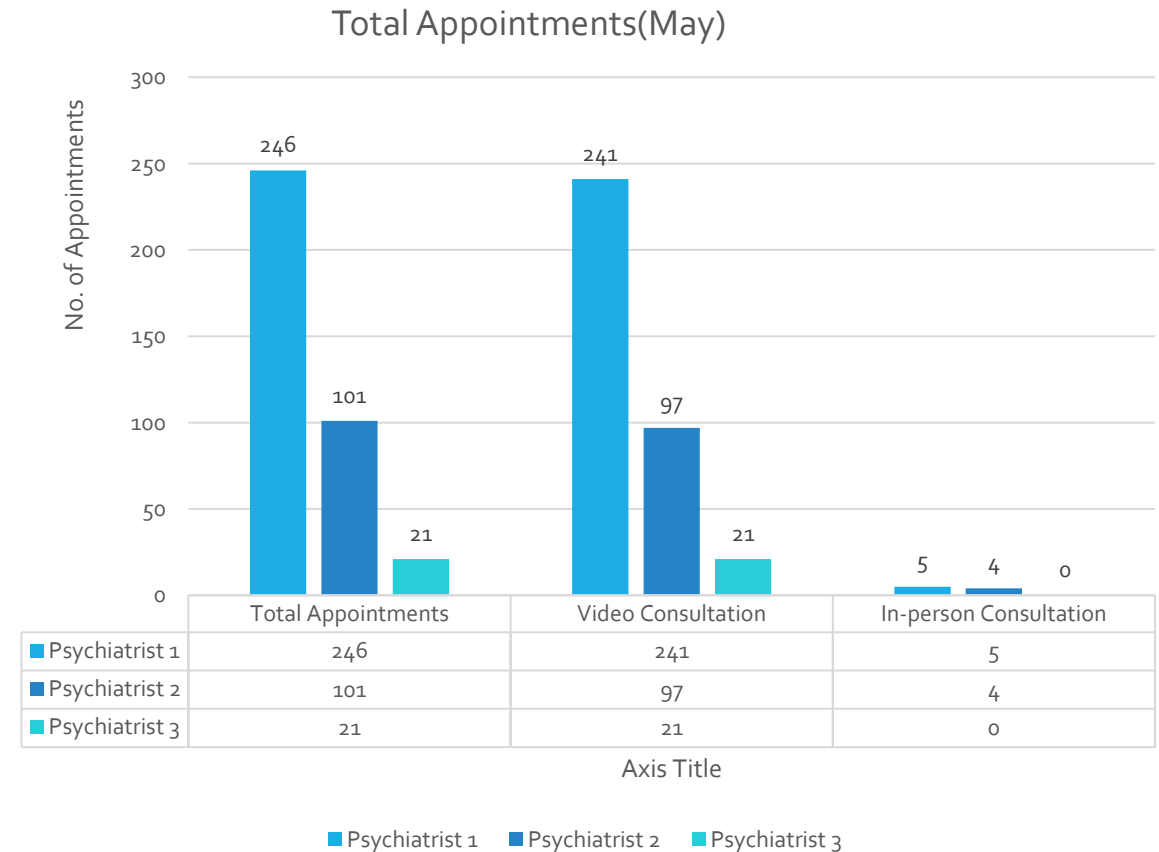
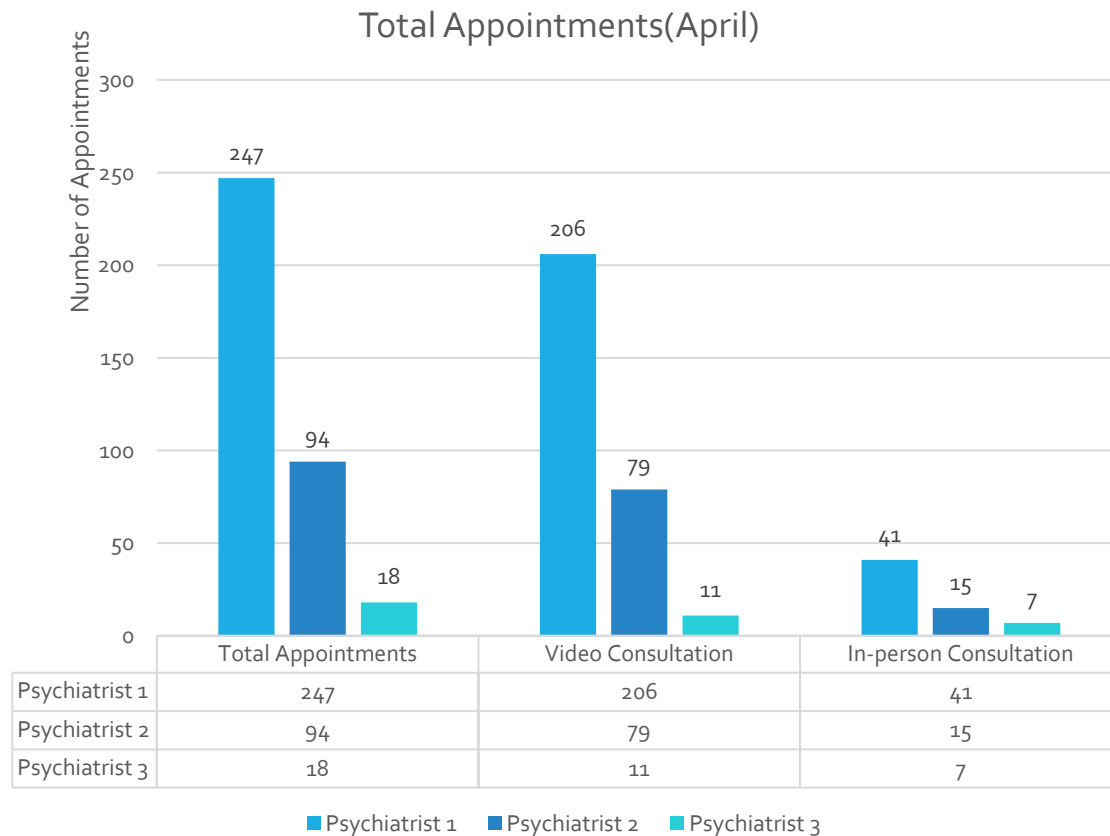
- IPD and emergency data has not been included in the study
- Psychologists, Art Based Therapists, Social Worker appointments have been excluded from the study

3.9 Data Analysis- The data analysis has been done through MS Excel.

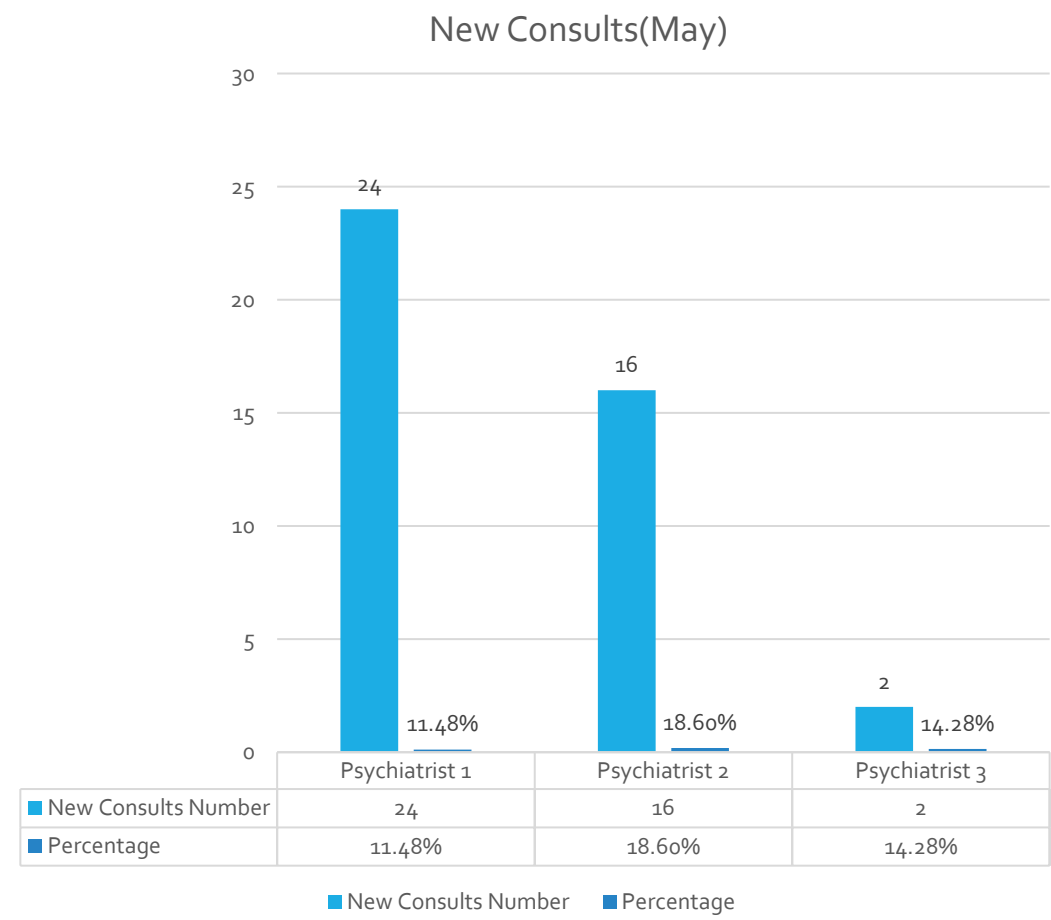
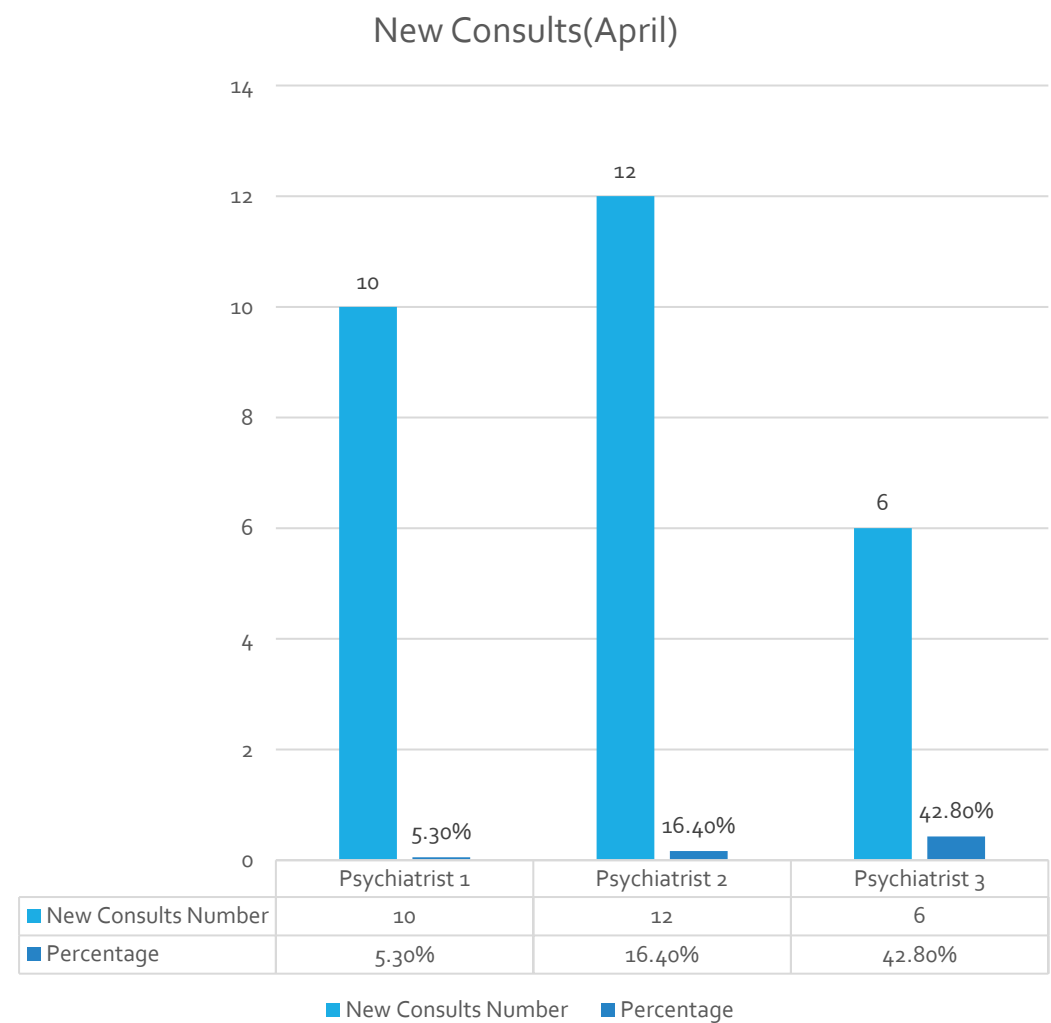
3.10 Ethical Considerations- Due considerations of confidentiality and privacy of information would be undertaken in the study.

4. RESULTS:

4.1 Total No. of Appointments (Video/In-person)-

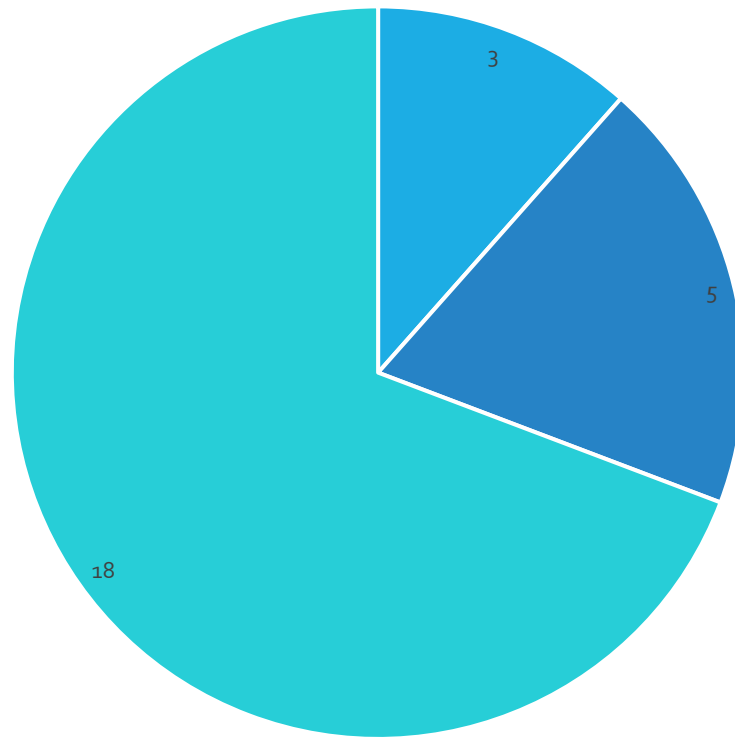


4.2 Percentage of new consults against total consults-



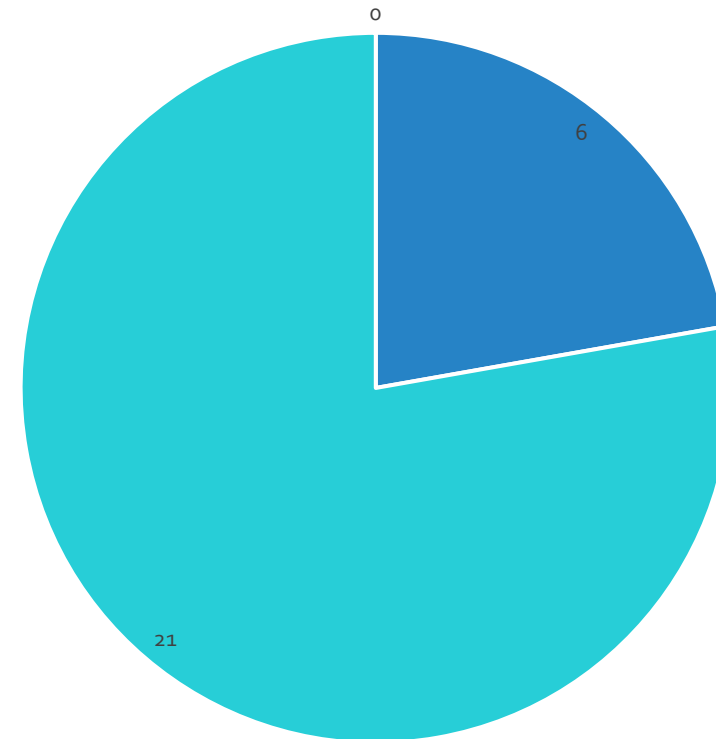
4.3 Days with nil OPD consultation-

April



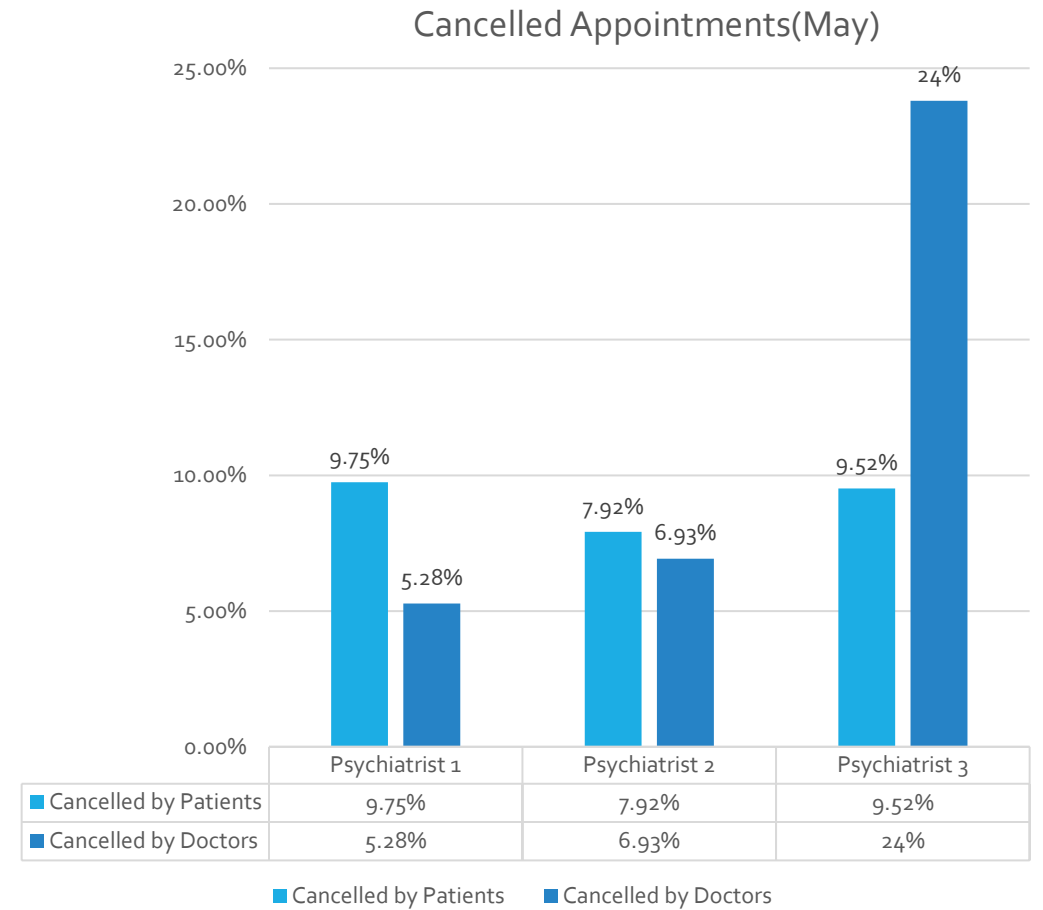
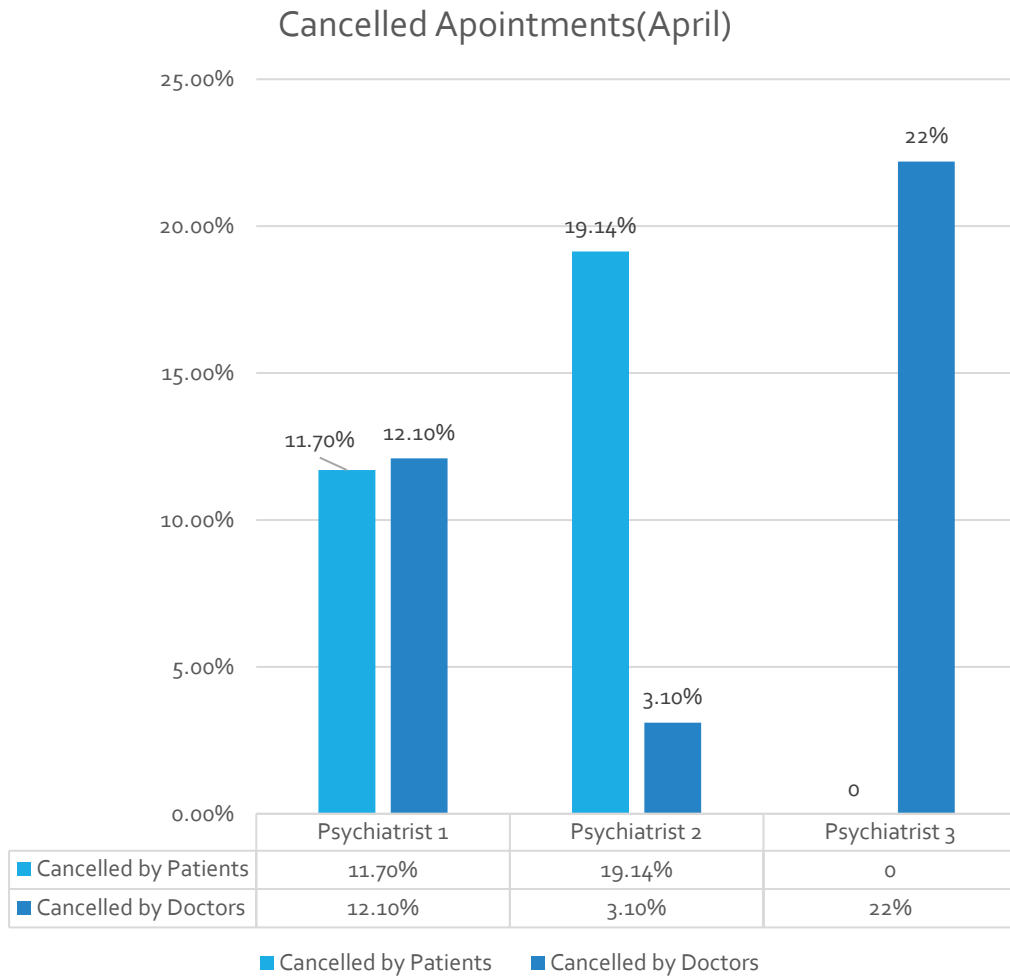
■ Psychiatrist 1 ■ Psychiatrist 2 ■ Psychiatrist 3

May



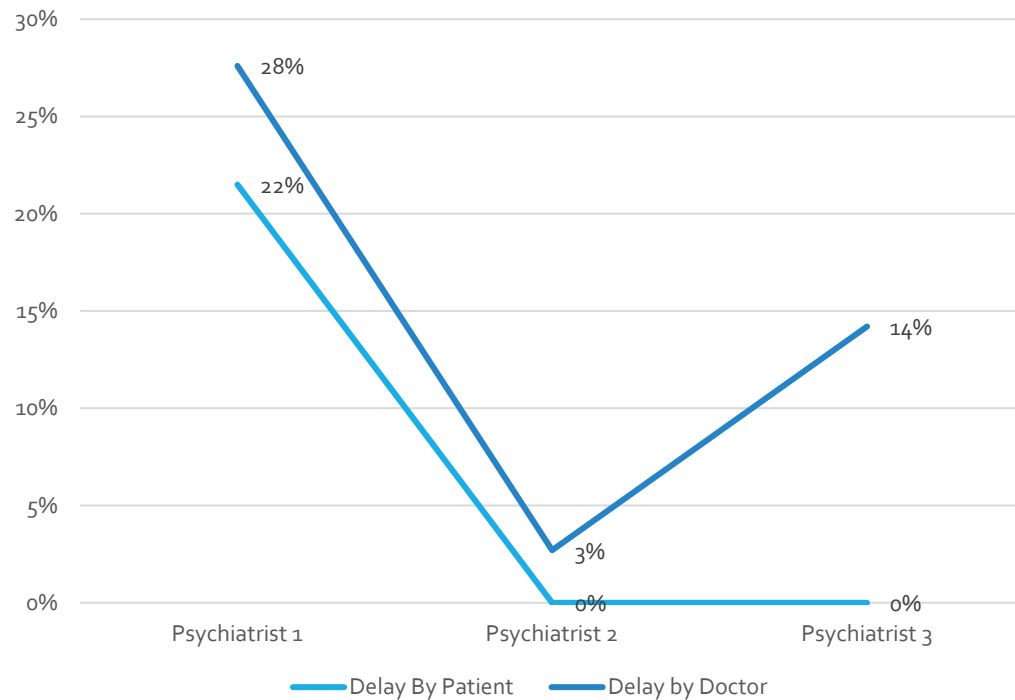
■ Psychiatrist 1 ■ Psychiatrist 2 ■ Psychiatrist 3

4.4 Cancelled Appointments-

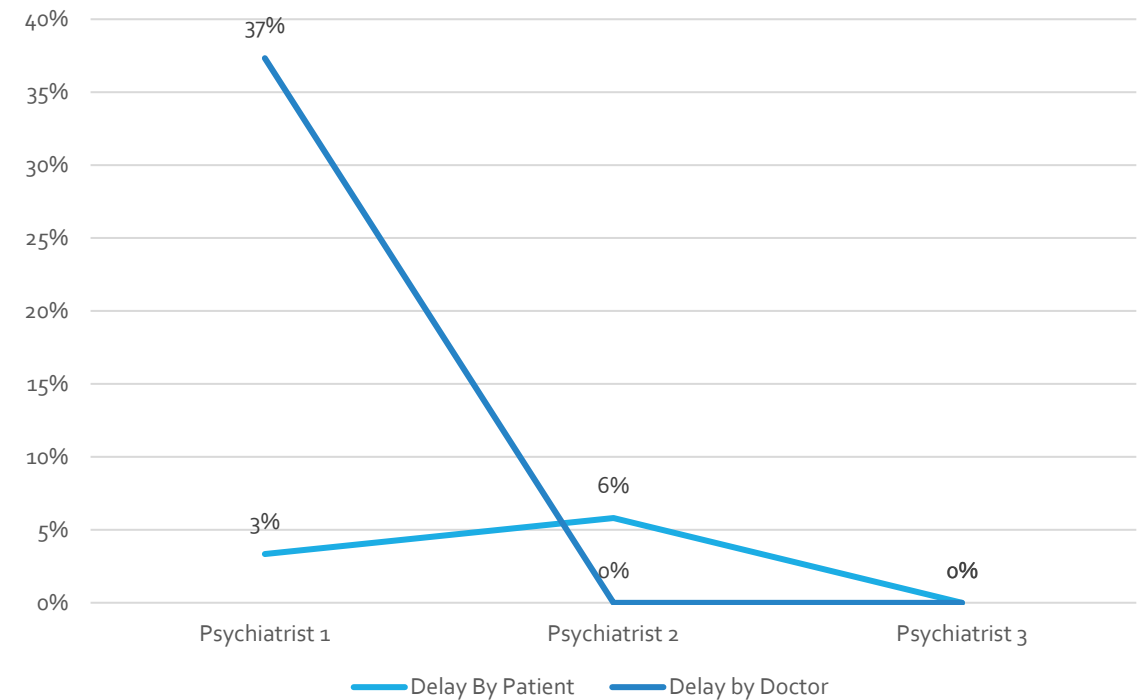


4.5 Percentage delay in start of consult by the Patient/Doctor-

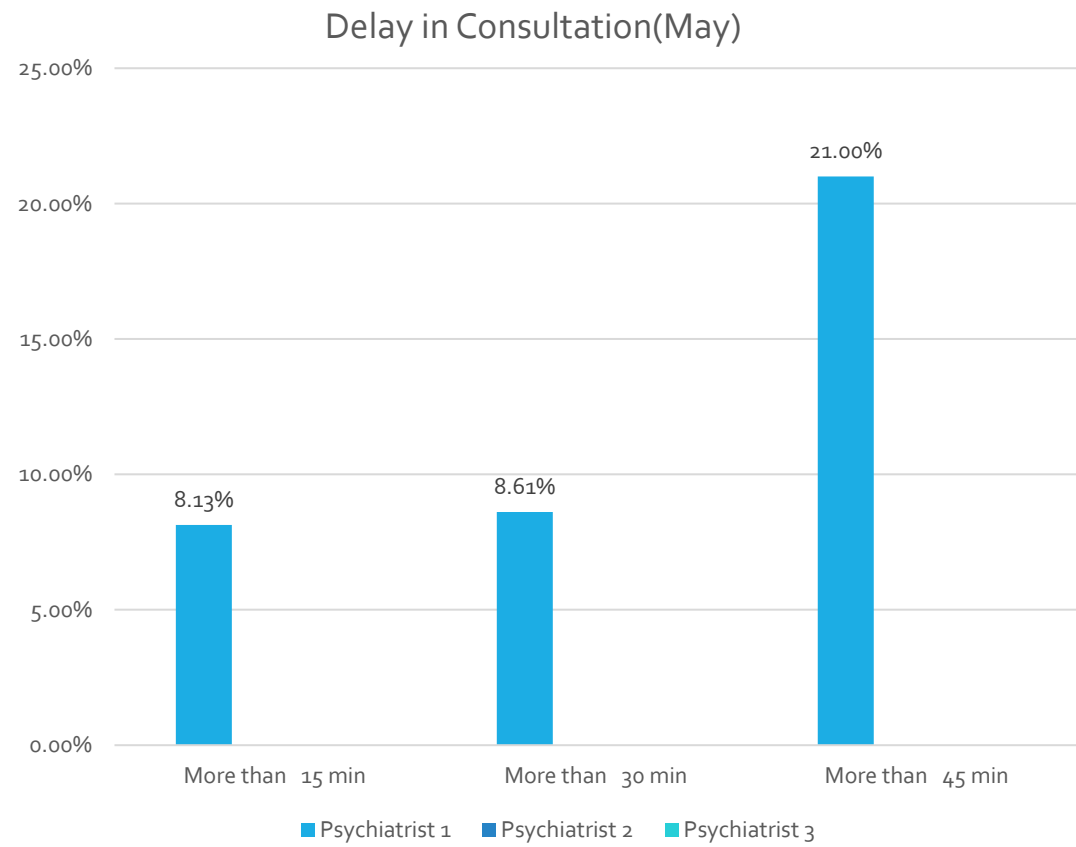
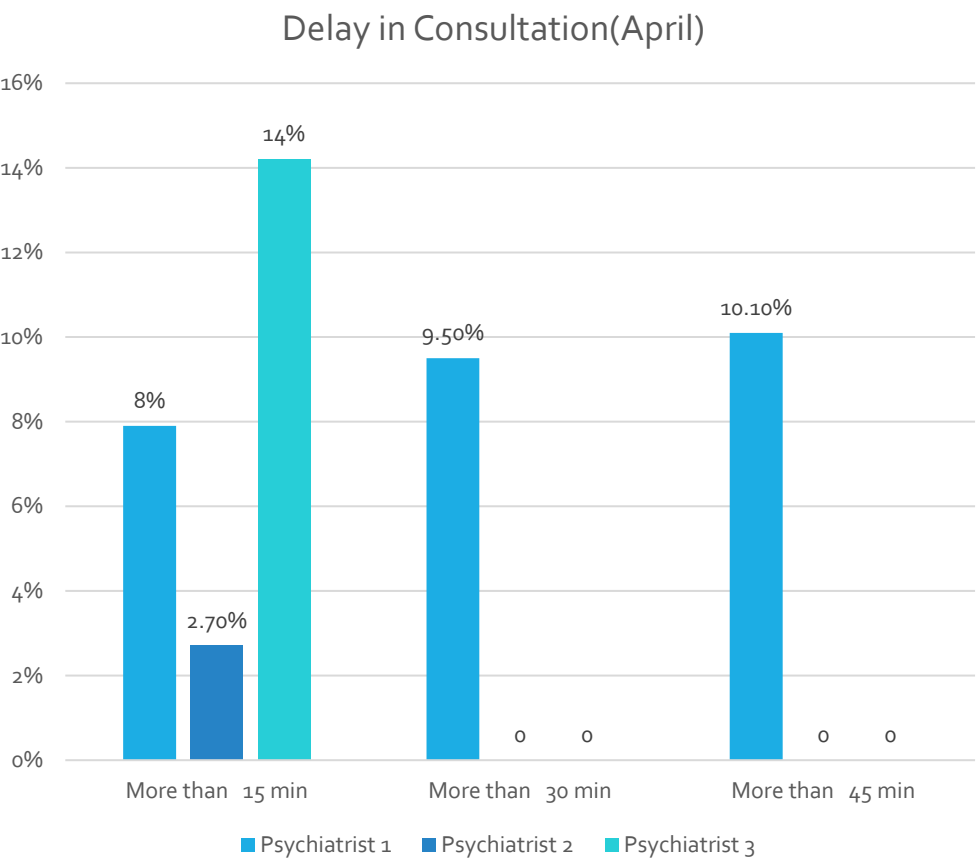
Delay In Start Of Consult(April)



Delay In Start Of Consult(April)



4.6 Percentage of Drs. arriving beyond scheduled OPD time-



4.7 Average Waiting Time-

- **April:**

- Psychiatrist 1- $1620/52 = 31.15$ min
- Psychiatrist 2- $30/2 = 15$ min
- Psychiatrist 3- $30/2 = 15$ min
- Average waiting time for OPD- $1680/56 = 30$ minutes

- **May:**

- Psychiatrist 1- $2775/79 = 35.12$ min
- Psychiatrist 2- 0 min
- Psychiatrist 3- 0 min
- Average waiting time for OPD- $2775/79 = 35.12$ minutes

4.8 Exotel Data Analysis-

- **April:**

- %age of Calls Dropped- $(75/285)*100=$ **26.30%**
- Call from Unique Numbers- **57**
- %age of Dropped Calls called back- NA

- **May:**

- %age of Calls Dropped- $(56/297)*100=$ **18.80%**
- Call from Unique Numbers - **46**
- %age of Dropped Calls called back- NA

5. DISCUSSION:

- Highest number of appointments are recorded for Psychiatrist 1, both Video and In-person as compared to other two psychiatrists
- Psychiatrist 3 has lowest number of appointments
- Out of 275 consults in April, only 28 were new patients and in May, only 42 were new patients out of 309 consultations
- For Psychiatrist 3, total consults are less but new consults are 42.8% out of total consults in April
- The highest number of days where OPD were done was by Psychiatrist 1. Psychiatrist 1 has done OPD even on Sundays in May
- Psychiatrist 3 has done very less OPD

- More number of appointments are cancelled by doctors as compared to patients in both April & May and highest no. of appointments is cancelled by Psychiatrist 3.
- Delay in start of consultation occurred more due to Psychiatrists as compared to patients and Maximum no. of delays occurred in Psychiatrist 1 consultations.
- Average waiting time for OPD in the month of April is 30 minutes and in May it is 35.12 minutes for all the three Psychiatrists.
- Total 285 calls have been received at console out of which 75 calls were dropped (26.30%) in April and in May, Total 297 calls has been received at console out of which 56 calls were dropped (18.80%).

6. RECOMMENDATIONS:

- Address the cause of appointment cancellation (Patient/doctor)
- Audit of re-scheduled appointments
- Address when the psychiatrists do not do OPD and what are the reasons for not doing it
- Find out the causes for delay in start of a consult by the Psychiatrist
- Reducing the average waiting time (<5 min)
- Reducing the %age of Calls Dropped (<3%)

7.CONCLUSION:

A hospital is a complex system, where each department performs specific functions and their performance is inter-related. The performance of one department within a hospital affects the performance of other departments. Quality of front office department is very crucial for the overall functioning of the hospital. So, this study was focused on the front office quality of the hospital. Recommendations proposed from this analysis will help in improvement of the service attributes and ultimately improving the quality.

THANK YOU.