Idle Waiting Time for Patients – Why Does It Happen?

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Abstract *— This study examines the increasing wait times for physician appointments and office visits at a medical practice specializing in endocrinology. The practice operates Monday through Thursday, with hours on Mondays and Wednesdays from 12:00 PM to 5:00 PM, and on Tuesdays and Thursdays from 8:00 AM to 12:00 PM. The current appointment system is outdated and overwhelmed by the growing number of patients. This study suggests that not only does the scheduling system contribute to long wait times, but that factors such as patients with multiple comorbidities, older patients, and those with psychological or mental disorders also play a significant role. Patients experienced wait times for consultations ranging from 33 to 121 minutes, with an average consultation time of 21.17 minutes. Implementing a new appointment scheduling method could reduce physician burnout, minimize errors, and allow for more dedicated time for patient care.*

Keywords *— Appointment, Consultation, Long Wait Times.*

INTRODUCTION

According to Merriam-Webster [1], medicine is the science and art of dealing with the maintenance of health and the prevention, alleviation, or cure of disease. Doctors work in tandem with nurses, physician assistants, and nurse practitioners to deliver medical care. Essentially, physicians advocate for patients and families, helping them navigate a complex medical system to obtain the most patient-centered care possible. However, as years have progressed, it has become increasingly difficult for physicians to provide patient-centered care effectively. There has been an increase in patient demand for more complex medical care, accompanied by a nationwide physician shortage. Since there are not enough physicians to meet demand, appointment wait times have increased, as well as wait times in the office before the consultation. Long wait times increase the likelihood of poor health outcomes affecting the timeliness of care. Consequently, this project will analyze a physician's practice office workflow, identify the root cause of increased wait times, and provide a preventive solution to optimize it.

PROBLEM STATEMENT

Sir James Spence defines consultation as the essential unit of medical practice, which is the occasion when, in the intimacy of the consulting room or sick room, a person who is ill, or believes himself to be ill, seeks the advice of a doctor whom he trusts [2]. A medical consultation serves as the primary tool for providing treatment, offering health advice, and facilitating information exchange between a patient and a physician. The waiting time is increasing not only for doctor consultations, but also for in-office waiting and appointments. An increase in wait times heightens patient frustration and decreases health outcomes, reducing patient quality of care. A successful study analyzes a specific physician's practice to understand the reasons for long wait times and develop solutions to reduce them.

RESEARCH DESCRIPTION

Over the years, wait time for medical care increased exponentially in 15 major U.S. metropolitan areas. Patients wait up to 31 days to schedule a doctor's appointment [3]. In Puerto Rico, a 2017 study found that primary care appointment wait times averaged 32 days, nearly 4 times the

national average [4]. Nonetheless, waiting time doesn't stop; patients still have to wait in the doctor's office before their consultation. Reducing waiting times would bring significant benefits to patients and the healthcare system, including improved quality, greater patient satisfaction, and enhanced operational efficiency.

RESEARCH OBJECTIVES

- Determine whether the patient's condition and appointment type contribute to longer waiting times.
- Optimize the scheduling system.
- Enhance patient satisfaction and care.

RESEARCH CONTRIBUTIONS

- Create an implementation plan to reduce waiting times.
- Suggest a dashboard of metrics and rules to support clinical decisions.
- Draft a potential schedule that organizes patients contingent on consultation type, diagnosis, and any known patient identifier.

LITERATURE REVIEW

In the past, medical consultations relied on patient narrative and humor-based theory. However, in the 19th century, the structure of medical consultations shifted from a leisurely conversation to a fast-paced, diagnostic-driven approach. With the rise of diagnostic tools and the development of specialization, the way doctors interact with patients has changed forever. One thing that stays the same is the definition of a consultation. Sir James Spence, a pioneering pediatrician, defined consultation as the essential unit of medical practice, the occasion when, in the intimacy of the consulting room or sick room, a person who is ill, or believes himself to be ill, seeks the advice of a doctor whom he trusts [2].

With the evolution of healthcare services, the consultation model has shifted towards more patient-centered care, emphasizing the need for physicians to understand and address patients' unique needs. The shift has increased patient engagement, personalized treatment plans, and enhanced communication. However, before a consultation can begin, a patient must first schedule an appointment by calling the office and verifying availability. After the patient books the appointment, they go through the following general queuing system: first, a patient arrives for their scheduled appointment [Check–in], second, services [Idle time waiting and physician consultation], and third, the patient departs from the appointment with the treatment order and the next scheduled appointment [5].

Not only does the patient have a long wait time when booking an appointment, but arriving at the office/clinic doesn't shorten it. A study titled *"The effect of in-office waiting time on physician visit frequency among working-age adults"* shows that, on average, patients wait 28.7 minutes for a consultation [6]. However, patient wait times vary by specialty and practice efficiency. Some clinics have more physicians available to meet patient demand, while others may be the only specialists nearby, which increases demand for them. Major factors contributing to increased wait times include physician shortages, burnout, administrative burdens, high demand for care, and inefficient scheduling. Ensuring a sufficient consultation length is essential to deliver quality care, which ultimately enhances patient safety and satisfaction. Key causes of increased wait times include late arrivals, no-shows, walk-in appointments, insufficient staffing, unpredictable consultation time length, and glitchy appointment software.

METHODOLOGY

The DMAIC Methodology is a structured problem–solving approach used to improve processes that don't meet standards, consisting of five phases: define, measure, analyze, improve, and control.

Define Phase

- Scope of work – define what the physician wants from this project

- "Voice of the customer" to identify needs

Measure Phase

Establish assumptions: interview an endocrinology specialist and identify how she perceives wait times in her practice. Sample questions include:

1. What is the idle waiting time for patients?
2. What is the maximum wait time a patient has before seeing you?
3. What is the average duration of a consultation?
4. How long do patients wait to get an appointment?
5. How many patients do you see in your clinic on a daily and weekly basis?
6. How do you accommodate patients in your schedule?
7. What is the type of outpatient appointment scheduling your practice has?
8. Is there a particular day of the week that is more crowded or challenging compared to others?

Measure actual performance: Verify the validity of the physician's claims—recollect data to clarify if the assumptions were true. Data collection will consist of two days in the physician's practice, with the start of the workday differing to see if the workflow fluctuates by day. The data collection plan collects data on patient arrival, waiting time, consultation, and departure time.

Analyze Phase

A. Identify bottlenecks in the practice
B. Root cause analysis – 4S fishbone diagram

Improve Phase

A. Improving medical office workflow - better patient traffic, business flow, faster patient care, and most importantly, improved patient journey and satisfaction

Control Phase

A. Create a control plan – document how to monitor, update, and maintain the new process.
B. Standard Operating procedures for the office

RESULTS AND DISCUSSION

Having highlighted how we will analyze why longer wait times in a clinic occur, this methodology can explain why they occur with the mentioned phases.

Define Phase

As seen in Figures 1 and 2, the scope of work explains why this project happens and provides a voice of the customer to identify the underlying issues and what the customer expects from this project.

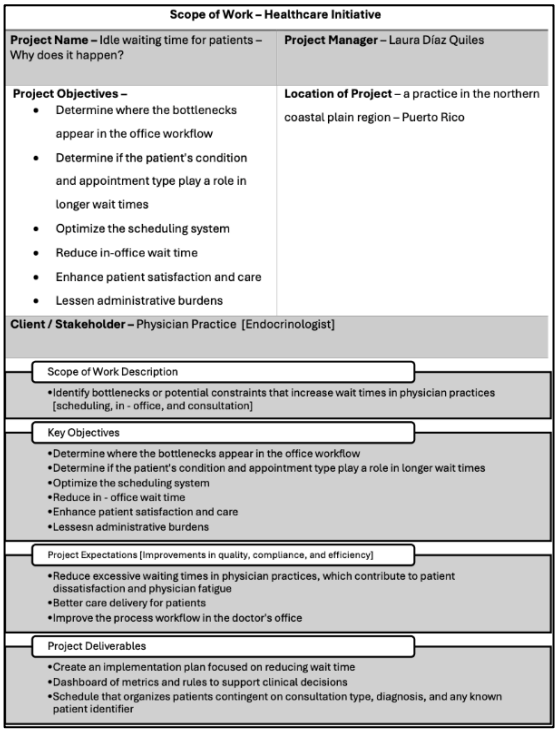


Figure 1
Scope of Work – Healthcare Initiative

Customer Comment	Identifying the Issue	Customer Requirements
Long wait times for both scheduling and in – office visits	1. Physician shortage – not enough endocrinologists to supply the need of a growing patient population 2. Overbooking to meet the need	Compliance with date and time for both the patient and the physician
Administrative burdens	1. Obsolete scheduling system	Optimize efficiency of scheduling system

Figure 2
Voice of the Customer

Measure Phase

Establish assumptions – Data on expected wait times comes from an interview with an endocrinology specialist about her practice—the

interview aimed to confirm initial assumptions regarding the long wait times for patients.

1. What is the idle waiting time for patients? 2 - 4 hours
2. What is the maximum wait time a patient has before seeing you? 5 hours
3. What is the average duration of a consultation? 20 - 25 min
4. How long do patients wait to get an appointment? 6 months
5. How many patients do you see in your clinic on a daily and weekly basis?
   - Daily: 28-29
   - Weekly: 112
6. What is the type of outpatient appointment scheduling your practice has? Time slot scheduling
7. Is there a particular day of the week that is more crowded or challenging compared to others? All equal.

Table 1

Patient Flow and Turnaround Time Log – April 1

Patient Flow and Turnaround Time Log – April 1						
12:00 pm [1st block]						
Patient	Arrival	Waiting [min]	Consultation			Departure
			Start	End	Time Spent [min]	
1	11:20 AM	56	12:16 PM	12:41 PM	25	12:46 PM
2	11:47 AM	55	12:42 PM	12:58 PM	16	1:03 PM
3	11:59 AM	61	1:00 PM	1:18 PM	18	1:23 PM
4	12:05 PM	92	1:37 PM	1:54 PM	17	2:02 PM
5	12:06 PM	91	1:37 PM	1:54 PM	17	2:02 PM
6	1:12 PM	42	1:54 PM	2:14 PM	20	2:19 PM
7	1:13 PM	61	2:14 PM	2:44 PM	30	2:49 PM
8	1:15 PM	59	2:14 PM	2:50 PM	36	2:55 PM
1:00 pm [2nd block]						
Patient	Arrival	Waiting [min]	Consultation			Departure
			Start	End	Time Spent [min]	
9	1:30 PM	80	2:50 PM	2:56 PM	6	1:01 PM
14	2:00 PM	116	3:56 PM	4:17 PM	21	4:22 PM
15	2:20 PM	96	3:56 PM	4:17 PM	21	4:24 PM
2:00 pm [3rd block]						
Patient	Arrival	Waiting [min]	Consultation			Departure
			Start	End	Time Spent [min]	
10	2:34 PM	33	2:57 PM	3:18 PM	21	3:23 PM
11	2:34 PM	33	2:57 PM	3:18 PM	21	3:23 PM
12	1:55 PM	85	3:20 PM	3:37 PM	17	3:42 PM
16	3:01 PM	85	4:24 PM	4:36 PM	12	3:41 PM
3:00 pm [4th block]						
Patient	Arrival	Waiting [min]	Consultation			Departure
			Start	End	Time Spent [min]	
13	1:55 PM	93	3:38 PM	3:50 PM	12	3:55 PM
17	2:36 PM	121	4:37 PM	4:48 PM	11	4:53 PM
18	3:15 PM	94	4:49 PM	5:22 PM	33	5:27 PM
19	4:05 PM	78	5:23 PM	6:08 PM	45	6:13 PM
20	4:05 PM	78	5:23 PM	6:08 PM	45	6:14 PM
21	4:30 PM	101	6:11 PM	6:32 PM	21	6:37 PM
22	4:50 PM	103	6:33 PM	6:40 PM	7	6:45 PM
23	5:00 PM	93	6:33 PM	6:48 PM	15	6:53 PM

Measure Actual Performance – Verifying the validity of the physician's claims involves analyzing a typical workday for the practice. The practice operates from Monday to Thursday. On Mondays and Wednesdays, it starts at 12 PM; on Tuesdays and Thursdays, it starts at 7:30 AM. This study focuses on identifying the existing workflow for the practice and determining factors that influence waiting time. The researcher visited the clinic on both Wednesday and Thursday to compare the average wait times for those days.

As shown in Tables 1 and 2, we have the patient flow and turnaround time log for both April 1 and April 2.

Table 2

Patient Flow and Turnaround – April 2

Patient Flow and Turnaround Time Log – April 2						
8:00 am [1st block]						
Patient	Arrival	Waiting [min]	Consultation [min]			Departure
			Start	End	Time Spent	
1	6:19 AM	65	7:24 AM	7:41 AM	17	7:46 AM
2	6:19 AM	65	7:24 AM	7:41 AM	17	7:46 AM
3	6:28 AM	77	7:45 AM	8:03 AM	18	8:08 AM
4	6:40 AM	85	8:05 AM	8:14 AM	9	8:18 AM
5	6:51 AM	85	8:15 AM	8:27 AM	12	8:32 AM
6	6:54 AM	94	8:28 AM	8:54 AM	26	8:59 AM
7	7:17 AM	98	8:55 AM	9:05 AM	10	9:10 AM
8	7:19 AM	107	9:06 AM	9:31 AM	25	9:36 AM
9	8:05 AM	87	9:32 AM	9:44 AM	12	9:49 AM
10	8:18 AM	93	9:51 AM	10:13 AM	22	10:18 AM
9:00 am [2nd block]						
Patient	Arrival	Waiting [min]	Consultation [min]			Departure
			Start	End	Time Spent	
11	8:51 AM	86	10:17 AM	10:32 AM	15	10:37 AM
12	8:54 AM	101	10:35 AM	10:50 AM	15	10:55 AM
13	9:30 AM	82	10:52 AM	11:02 AM	11	11:07 AM
10:00 am [3rd block]						
Patient	Arrival	Waiting [min]	Consultation [min]			Departure
			Start	End	Time Spent	
14	9:42 AM	82	11:04 AM	11:19 AM	15	11:24 AM
15	10:01 AM	79	11:20 AM	11:27 AM	7	11:31 AM
16	10:20 AM	68	11:28 AM	11:45 AM	17	11:50 AM
17	10:59 AM	48	11:47 AM	12:24 PM	37	12:28 PM
18	10:59 AM	48	11:47 AM	12:24 PM	27	12:28 PM
19	11:24 AM	69	12:28 PM	1:01 PM	33	1:06 PM
20	11:19 AM	69	12:28 PM	1:01 PM	33	1:06 PM
21	12:13 PM	49	1:02 PM	1:19 PM	17	1:25 PM
11:00 am [4th block]						
Patient	Arrival	Waiting [min]	Consultation [min]			Departure
			Start	End	Time Spent	
22	12:04 PM	76	1:20 PM	1:41 PM	21	1:46 PM
23	12:08 PM	72	1:20 PM	1:41 PM	21	1:46 PM

12:00 pm [5th block]						
Patient	Arrival	Waiting [min]	Consultation [min]			Departure
			Start	End	Time Spent	
24	12:11 PM	91	1:42 PM	1:52 PM	10	1:57 PM
25	12:20 PM	82	1:52 PM	2:24 PM	32	2:29 PM
26	12:30 PM	72	1:52 PM	2:24 PM	32	2:29 PM

Descriptive Statistics

Having measured the medical practice's actual performance, we can identify the reasons behind long wait times. The data collection plan for this study consists of completing a patient flow and

turnaround time log for each day in the practice. [Wednesday, April 1–Thursday, April 2] The time log measures the number of patients cited for the day, arrival time, idle waiting time for consultation, consultation time (start, end, and time spent), and departure time. Furthermore, a clinical coding table outlines consultation types, age, and diagnoses; this information can help identify which factors contribute to long wait times.

Now, measuring central tendency and frequency demonstrates the distribution of values and how often an event occurs. Based on studies, longer consultation times occur when physicians have to see an abundance of patients with comorbidities or chronic diseases, geriatric patients, and patients who suffer from mental or psychological disorders. Additionally, the type of consultation influences the time the physician takes with the patient. As shown in Figures 3, 4, and 5, it was important to analyze and compare the average waiting times for both days, determine each patient's demographic profile, and highlight the type of consultation.

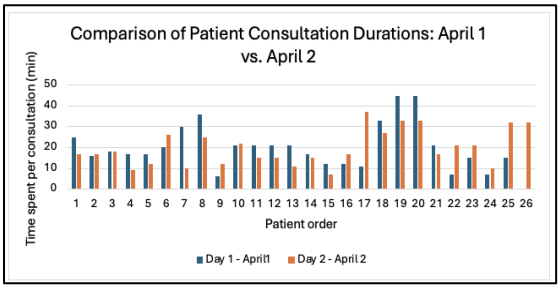


Figure 3
Comparison of Patient Consultation Durations: April 1 vs. April 2

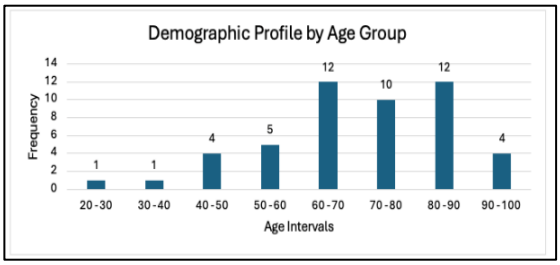


Figure 4
Demographic Profile by Age Group

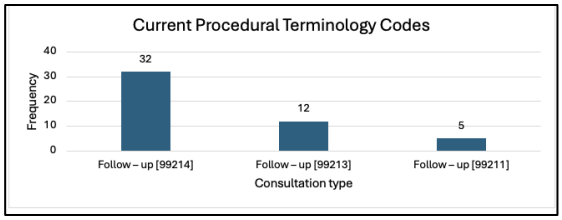


Figure 5
Current Procedural Terminology Class

Control Charts

During both days of patient evaluation, the researcher assessed the waiting times and the length of each consultation as shown in Figures 6, 7, 8, and 9. These measurements allow us to verify whether the physician's assumptions were correct. The acquired data showed that the wait time for patients ranges from 2 to 4 hours and that an average consultation lasts about 20-25 minutes, confirming the physicians' assumptions.

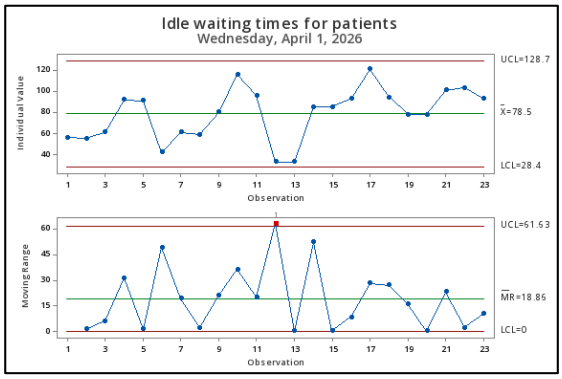


Figure 6
Idle Waiting Times for Patients – April 1

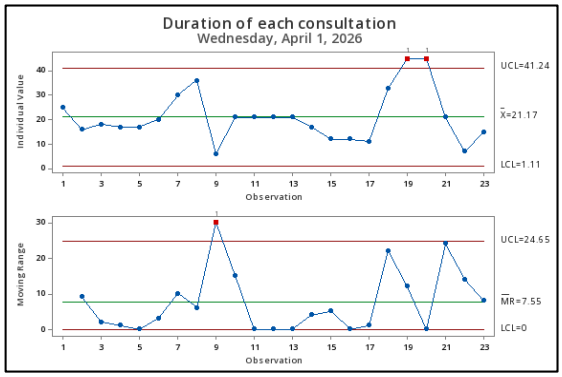


Figure 7
Duration of Each Consultation – April 1

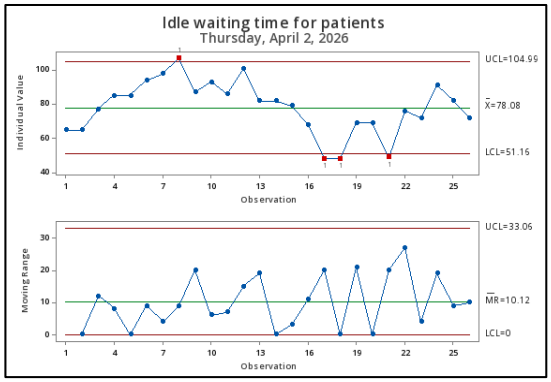


Figure 8
Idle Waiting Time for Patients – April 2

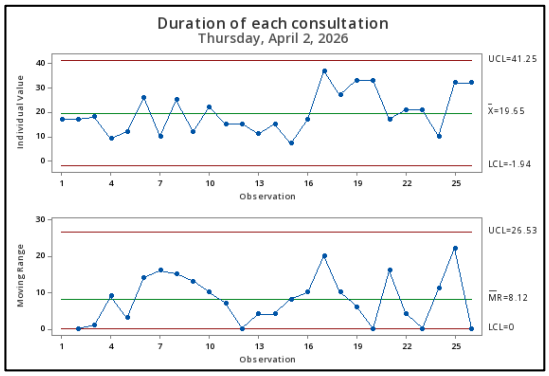


Figure 9
Duration of Each Consultation – April 2

The control charts help study how a process changes over time. A control chart has a center line for the average, an upper control limit, and a lower control limit. In this study, control charts analyze steps of a practice workflow, specifically idle waiting times and consultation length. For the acquired data, most points are near the control limits and away from the center line, meaning that the process is still in control. However, for the idle waiting time figure on Thursday, April 2, the values exceeded the upper and lower control limits. The test failed at points 8, 17, 18, and 21. The waiting times for these points were 107, 48, 48, and 49 minutes. The same happened for the duration of each consultation graph on Wednesday, April 1. The test failed at points 9, 19, and 20, exceeding control limits.

From these results, one can infer that this is a case of common, inherent variation arising from the way the process is designed and managed.

Analyze Phase

Identify bottlenecks: Physician overload with administrative tasks; poor patient flow and appointment delays; slow, error–prone billing and claims processing; disconnected documentation; and poor visibility into the practice's performance. Figure 10 provides a detailed 4S fishbone diagram to explain the reasons for long wait times for in–office visits and to determine exactly where in the process and at what time the longest wait occurs.

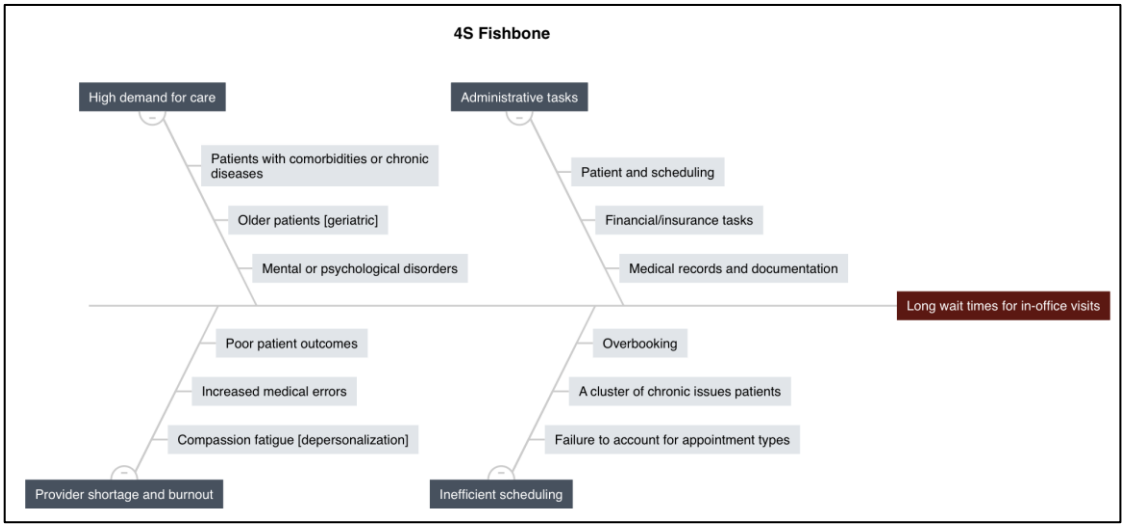


Figure 10
4S Fishbone

The longest wait time occurs during the consultation. What the specialist established during her interview was proven true. Patients wait, on average, 2 to 4 hours for a consultation, and the average consultation lasts 20 to 25 min. However, why is the physician still having trouble providing preventive care, adequate knowledge of geriatric needs, and specialized attention? Well, from the acquired data, we can infer the following: the bulk of the patients are 65+ years old, most of the current procedural terminology codes are Follow-up [99214], in which patients have multiple chronic conditions for a moderate complexity visit, and longer wait times depend on arrival, consultation type, diagnosis, treatment plan, and potential treatment plan.

To understand why long wait times occur, the researcher analyzed the duration of patient consultations on April 1 and April 2. Ultimately, the deciding factor for why patients wait so long was the diagnosis. The more diagnoses a patient has, the longer the consultation time is. However, the patient's complete medical history also plays a role. On April 1, a patient waited 94 min to see the physician, and the consultation lasted 33 minutes. The patient had one diagnosis, E03.9 - hypothyroidism. This consultation lasted longer than her average. On the other hand, on April 2, a patient with three diagnoses—E03.9 (hypothyroidism), E78.2 (hyperprolactinemia), and M81.8 (other osteoporosis)—had a consultation that lasted 12 minutes.

While long wait times are often due to the complexity of consultations, patients with multiple comorbidities may actually wait less than those with a single diagnosis. Ultimately, the wait time depends on the individual patient that the physician sees in her clinic. Another factor that increases wait times is more patients scheduled than can be handled during the first block of both days, ultimately increasing the in-office wait. Not only do the patients' specific comorbidities, age, and mental or psychological disorders influence wait times, but overbooking in the first block from the very start delays the doctor.

The key takeaway from this study is that to reduce the burden of long wait times in a patient's office, physicians need to identify the most complex cases primarily by reviewing each patient's complete medical history.

Improve Phase

What will we do? Reducing outpatient wait times in a specialist practice. **What is the problem?** Long wait times for in-office visits. **Root cause?** Inefficient scheduling that leads to overbooking, a cluster of chronic issue patients, and failure to account for appointment types. Therefore, ***should consultations be tailored to each patient's needs, or should a one-size-fits-all approach remain?***

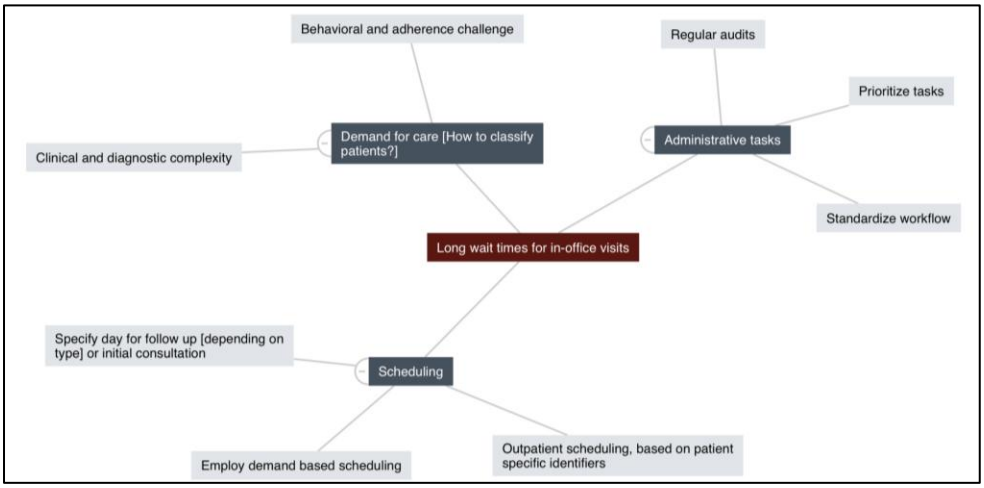


Figure 11
Brainstorming

Currently, a one-size-fits-all approach is no longer effective. Physicians do not have enough hours in the day to meet all the requirements necessary for providing adequate patient care. When the patient finally sees the doctor, consultation time will vary. However, if the patient has multiple issues, which increase consultation time, creating a domino effect that can delay the entire clinic. Figure 11 explains some of the causes for increased consultation times.

Why do longer consultation times occur? Longer consultation times occur due to patients with comorbidities or chronic diseases, geriatric patients, or patients with mental or psychological disorders. The variation in workflow mainly stems from patient scheduling, which requires adjustments in clinic procedures. To optimize the clinic's workflow, the physician must evaluate the time spent consulting with these three patient types.

Table 5

Implementation Plan – Focused on Reducing Wait Time

IMPLEMENTATION PLAN - Focused on reducing wait time					
ACTION	PRIORITY	STATUS	START DATE	END DATE	NOTES
Phase 1. Feasibility Study					
Conduct a study to determine the reasons for long wait times	High	Complete	1-Apr	2-May	Long wait times stem from poor patient scheduling, provider shortage and burnout, high demand for care, and administrative tasks
Analyze patient data to identify different customer segments	High	In Progress	2-May		Longer consultation times occur due to patients with comorbidities or chronic diseases, older patients, and mental or psychological disorders.
Estimate the cost for initial investment [time] and potential ROI	Medium	Not Started	00/00/00		How would this help the clinic in the long run? What would be the amount of time and labor that would go toward this?
Phase 2. Design and Development					
Redefine how appointment scheduling happens in the practice	Medium	Needs Review	00/00/00		Scheduling based on already pre-established patient outliers by doctor [comorbidities, age, and/or mental or psychological disorders]
Finalize design - demand based scheduling or based on patient specific identifiers	High	Needs Review	00/00/00		Identify which suits the practice best
Phase 3. Pilot Testing					
Identify preferred scheduling method and employ in practice	High	On Hold	00/00/00		Study which methods best suits practice and start scheduling appointments in that way
Train personnel on new appointment scheduling method	High	On Hold	00/00/00		

Having determined why longer consultation times occur and how they cause a domino effect in the whole clinic. Some tangible outcomes that can help reduce in-office wait times, if implemented, include: an implementation plan focused on reducing wait times, as shown in Table 5, a dashboard of metrics and rules to support clinical decisions that must provide sufficient information for appropriate care; however, identifying outliers can lead to longer wait times than for other patients, and potential practice schedule that organizes patients based on consultation type, diagnosis, and any known patient identifier as seen in Figure 11. A potential schedule should establish a daily visit target as a starting point, assess the time required for various types of patient visits, and divide the list of problems and visit types into short, medium, and long visits.

Control Phase

Addressing the inherent variation in the practice's workflow requires a significant change to the appointment booking process. Employing a control plan and drafting an SOP can help staff understand the new changes and provide continuous improvement that adheres to the stipulated requirements. The control plan highlights those key steps and the control method that employs those new requirements. Scheduling now based on known established patients' outliers, comorbidities, age, and/or mental or psychological disorders, to guarantee patients are accommodated on the schedule accordingly.

Currently, the physician's practice lacks an SOP, which affects practice efficiency. As seen in Figure 13, an efficient SOP minimizes errors, clears the way forward, reduces uncertainty, and serves as a vital tool for transferring knowledge and skills.

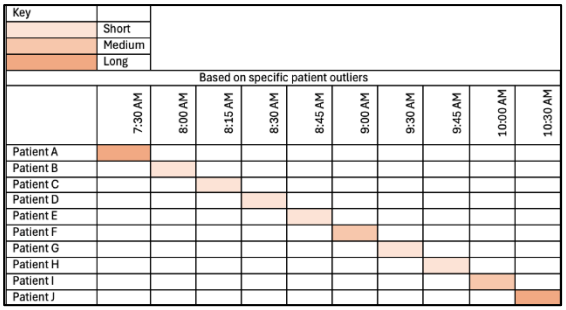
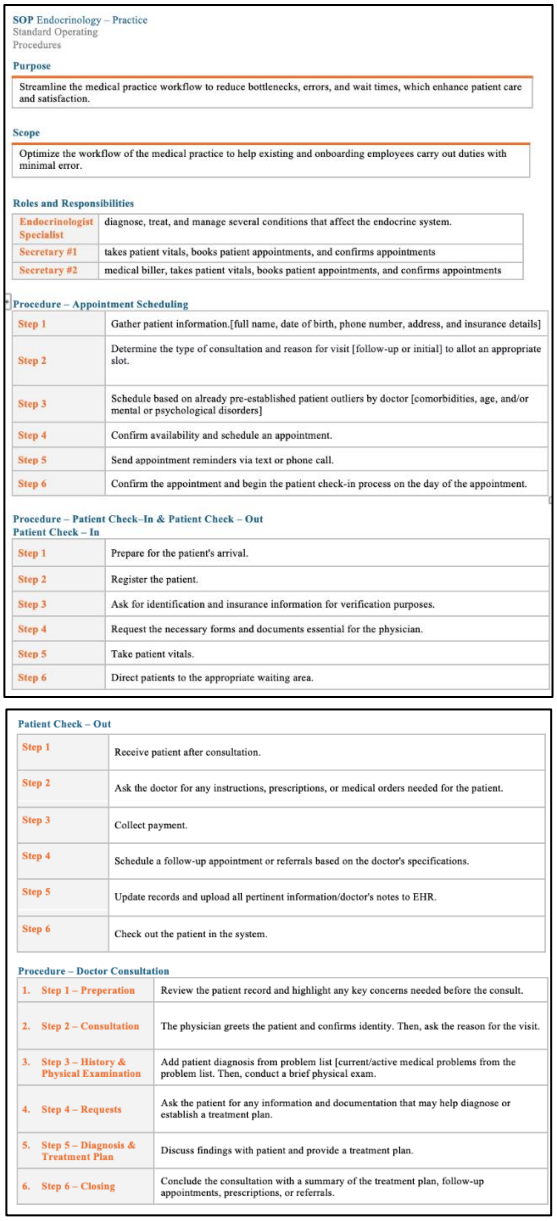


Figure 12

Potential Schedule



SOP Endocrinology – Practice
Standard Operating Procedures

Purpose

Streamline the medical practice workflow to reduce bottlenecks, errors, and wait times, which enhance patient care and satisfaction.

Scope

Optimize the workflow of the medical practice to help existing and onboarding employees carry out duties with minimal error.

Roles and Responsibilities

Endocrinologist Specialist	diagnose, treat, and manage several conditions that affect the endocrine system.
Secretary #1	takes patient vitals, books patient appointments, and confirms appointments
Secretary #2	medical biller, takes patient vitals, books patient appointments, and confirms appointments

Procedure – Appointment Scheduling

Step 1	Gather patient information.[full name, date of birth, phone number, address, and insurance details]
Step 2	Determine the type of consultation and reason for visit [follow-up or initial] to allot an appropriate slot.
Step 3	Schedule based on already pre-established patient outliers by doctor [comorbidities, age, and/or mental or psychological disorders]
Step 4	Confirm availability and schedule an appointment.
Step 5	Send appointment reminders via text or phone call.
Step 6	Confirm the appointment and begin the patient check-in process on the day of the appointment.

Procedure – Patient Check–In & Patient Check – Out
Patient Check – In

Step 1	Prepare for the patient's arrival.
Step 2	Register the patient.
Step 3	Ask for identification and insurance information for verification purposes.
Step 4	Request the necessary forms and documents essential for the physician.
Step 5	Take patient vitals.
Step 6	Direct patients to the appropriate waiting area.

Patient Check – Out

Step 1	Receive patient after consultation.
Step 2	Ask the doctor for any instructions, prescriptions, or medical orders needed for the patient.
Step 3	Collect payment.
Step 4	Schedule a follow-up appointment or referrals based on the doctor's specifications.
Step 5	Update records and upload all pertinent information/doctor's notes to EHR.
Step 6	Check out the patient in the system.

Procedure – Doctor Consultation

1. Step 1 – Preperation	Review the patient record and highlight any key concerns needed before the consult.
2. Step 2 – Consultation	The physician greets the patient and confirms identity. Then, ask the reason for the visit.
3. Step 3 – History & Physical Examination	Add patient diagnosis from problem list [current/active medical problems from the problem list. Then, conduct a brief physical exam.
4. Step 4 – Requests	Ask the patient for any information and documentation that may help diagnose or establish a treatment plan.
5. Step 5 – Diagnosis & Treatment Plan	Discuss findings with patient and provide a treatment plan.
6. Step 6 – Closing	Conclude the consultation with a summary of the treatment plan, follow-up appointments, prescriptions, or referrals.

Figure 13
SOP Endocrinology Practice

CONCLUSION

This study has shed light on the time patients spend waiting for appointments and consultations in a physician's practice. It emphasizes the discrepancy between the physician's assumptions and the actual workflow, which is crucial for understanding the dynamics of patient wait times. Although the physician's assumptions proved correct, the practice's workflow inherently varies due to its design and management. Understanding the gap between physician assumptions and actual practice operations is essential for understanding the reasons behind increased wait times.

Addressing these discrepancies is crucial for improving patient satisfaction and operational efficiency. The physician should understand that inefficient scheduling is the primary cause of increased wait times in the practice. This tends to happen due to overbooking, a cluster of chronic issue patients, and failure to account for appointment types. Currently, a one-size-fits-all approach is no longer effective. Physicians need to evaluate patients with comorbidities or chronic disease, older patients, and mental or psychological disorders to determine how the appointment booking process should happen.

Recommendations for improving the practices workflow include employing an implementation plan focused on reducing wait times, a practice management system, designing a potential clinical dashboard, and scheduling based on already pre-established patient outliers by doctor [comorbidities, age, and/or mental or psychological disorders]

Ultimately, this research underscores the importance of aligning physician expectations with patient realities and calls for ongoing evaluation and adjustment of practice operations. By doing so, healthcare providers can work to reduce wait times and improve the quality of care delivered to patients.

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