RUNNING THE NUMBERS
MINIMIZING OPPORTUNITY COST TO MAXIMIZE PROFITS

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"OPPORTUNITY COST" (NOUN) – THE ADDED COST OF USING RESOURCES THAT IS THE DIFFERENCE BETWEEN THE ACTUAL VALUE RESULTING FROM SUCH USE AND THAT OF AN ALTERNATIVE USE. THE COST OF THE ALTERNATIVE THAT MUST BE FORGONE IN ORDER TO PURSUE A CERTAIN ACTION.

When many orthodontists think about the business of orthodontics as it relates to their practice, they think in terms of total production. Assuming a practice has appropriate collection protocols in place, a simplified formula for practice profitability looks like this:

$$Production - Overhead = Profit (P)$$

For the sake of simplicity and to leave actual profit numbers in dollars out of the discussion, I will refer to a practice's profitability simply as "profit". To me, the discussion of practice profitability centers on how much effort it takes to generate profit (quality of life). For example, if an orthodontist must see patients 4 days per week to generate profit then the practice profitability looks like this:

$$P / 4 \text{ days} = .25P/\text{day per week}$$

If the same practice can care for its patients in 3 days per week then its profitability is:

$$P / 3 \text{ days} = .33P/\text{day per week}$$

As you can see, not all profits are created equally. This article will discuss how a focus on clinical efficiency can reduce the effort required to achieve profit for your orthodontic business.

There are many ways to define "clinical efficiency" in an orthodontic practice; however, I believe the single most important variable to determine clinical efficiency as it relates to profitability is the number of visits it takes to complete a patient's treatment (assuming constant average appointment lengths across the industry). To highlight this, let's compare two practices, each starting 300 patients per year. In Practice One, the average number of visits it takes to complete treatment is 12, while in Practice Two, the average number of visits to complete treatment is 18 (counting every appointment from initial bonding to the debonding appointment, including comfort visits). Using these two practices as the example, Practice Two has to schedule 50% more patient appointments to complete treatment than Practice One. The way many offices manage this larger work load is to -

A   Work more days
B   Hire more assistants
C   Have shorter appointments
D   See more patients per day
E   All of the above

While all of these are viable options, none of them actually make the practice more profitable and worse yet, there is an "opportunity cost" to each of them. The opportunity cost of working more days is that the

doctor will have less personal time (quality of life) or less time available to pursue other business opportunities (profitability). Hiring more assistants increases overhead and hence directly reduces profit. Having shorter appointments and seeing more patients per day both increase the effort required to generate profit and negatively impact the practice's quality of life. So as you can see, the practice that cares for their patients in fewer appointments will be more profitable and have a better quality of life. If this concept is appealing to you, then read on!

While some orthodontists measure the size of their practice by total production, others measure the size of their practice, and hence their work load, by the total annual number of starts. Notice from the example comparing Practice One and Practice Two that the number of starts does not necessarily correlate directly to the amount of "work" required to create profit. Both practices are doing 300 starts, and assuming the same average case fee, have the same total production. However, due to the extra 6 appointments required to treat their patients the doctor and team of Practice Two are working harder – not smarter. Therefore, the average number of visits to complete treatment is more directly related to the workload of the practice than is the total number of starts.

Delving further into the metrics surrounding the average number of appointments required to treat patients will show the value of working smarter – not harder. When evaluating the average number of appointments, one must first look at the type of appointments required to provide treat-

ment. To complete treatment, every patient must have an initial bonding and debonding appointment. Between those appointments are multiple wire change and "adjustment" appointments, and perhaps a pan & repo appointment. Aside from the initial bonding and the debonding appointment, all other appointments are considered "progressive" appointments and are required to complete the patient's treatment. It is these progressive appointments that create the clinical workload in orthodontic practices. **Minimize the number and length of these progressive appointments and you minimize the workload.**

In my practice, the goal for average number of appointments is twelve. This number wasn't pulled out of the air; rather it was reverse engineered from a thorough evaluation of my clinical protocols. Specifically, it was developed from what I consider to be an ideal daily schedule for a single clinical assistant –

- one initial bonding (start)
- nine progressive appointments (adjustments)
- one longer appointment (pan & repo)
- one debonding (finish)

The more I evaluated this list, the more I realized its resemblance to the life-cycle of orthodontic treatment – braces are applied, adjustments are made, braces come off. Each of my clinical assistants is scheduled with these visits in their column for each clinical day. So if each patient's treatment could be completed within these 12 appointments, then in theory, each assistant could care for an entire life-cycle of orthodontic treatment in ONE DAY!

From here the math is easy. A 300 start practice averaging 12 appointments to complete treatment (Practice One), should be able provide all patient care with three assistants in 100 clinical days per year. (By the way, this is only TWO clinic days per week!)

3 assistants x 1 start/day = 3 starts/day

300 starts/3 starts per day = 100 clinic days

Another 300 start practice (Practice Two) that takes 18 appointments to complete treatment will require either more clinic days or more assistants to care for their

patients. Based on the 50% greater amount of progressive appointments, Practice Two must see patients nearly 150 days to accomplish the 300 starts per year.

Let's look at this from both perspectives – more clinic days vs. more assistants.

MORE CLINIC DAYS –

Because each assistant can see 12 patients (of specific appointment types) per day, on "Day 1", each of the three assistants will take care of 12 of the 18 total treatment appointments. However, on "Day 2", the remaining 6 progressive appointments required to complete the average patient's treatment will need to be addressed. The other 6 appointments on "Day 2" will be for the additional 6 progressive appointments required for the starts that the three assistants will do on "Day 3". So at 18 average appointments in Practice Two, three assistants will do only 6 starts per three day week vs. the 9 starts per three day week of the more efficient Practice One. In other words, Practice One, due to its clinical efficiency could start 450 patients on three days per week with three assistants! This example shows the level of clinical IN-efficiency that exists today in the orthodontic industry. Even the "inefficient" Practice Two is capable of starting 300 patients per year, on three days per week, with only three assistants!

THERE ARE MANY WAYS TO DEFINE "CLINICAL EFFICIENCY" IN AN ORTHODONTIC PRACTICE; HOWEVER, I BELIEVE THE SINGLE MOST IMPORTANT VARIABLE TO DETERMINE CLINICAL EFFICIENCY AS IT RELATES TO PROFITABILITY IS THE NUMBER OF VISITS IT TAKES TO COMPLETE A PATIENT'S TREATMENT (ASSUMING CONSTANT AVERAGE APPOINTMENT LENGTHS ACROSS THE INDUSTRY).

MORE ASSISTANTS –

Another way many practices manage their clinical inefficiency is to add more assistants. The doctor will work fewer days, but the clinical team overhead will be a higher percentage of production (and hence reduce profit). The way to determine if this is the case for your practice is to divide the total starts by the total clinic days worked.

If the resulting number is significantly less than the number of assistants employed, leaving some room for growth, then clinical efficiency is not where it could or should be. Let's look at the two practices for comparison.

PRACTICE ONE –

- 300 starts / 100 days per year = 3 starts per day
- 3 starts per day = 3 assistants

This practice is incredibly efficient but may not have room for growth without adding a days or an assistant. The doctor will need to determine the best route for their practice, but likely adding one assistant will provide ample room for growth while ensuring quality of life.

PRACTICE TWO –

- 300 starts / 150 days per year = 2 starts per day
- 2 starts per day < 3 assistants

This practice is quite efficient and has plenty of room for growth. If clinical efficiency could be improved even slightly, then the practice could both grow AND reduce the number of clinic days.

Now let's take a look at Practice Three. This practice likely resembles many orthodontic practices in our industry. 300 starts per year, four days per week, with four assistants.

PRACTICE THREE –

- 300 starts per year / 200 days per year = 1.5 starts per day
- 1.5 starts per day <<< 4 assistants

In Practice Three, the starts per day are substantially less than the number of assistants that work each day. This practice is not very efficient and has a higher staff overhead per production than it should.

There are likely three main issues in this practice.

- Clinical inefficiency of approximately 24 appointments to complete treatment
- Openings in the schedule that could be better managed
- Clinical assistant abilities that provide fewer than 12 appointments per day

In my opinion, the ideal balance between number of starts and number of assistants is to have one more assistant than average starts per day. This provides ample room for growth, enhances the doctor's and practice's quality of life and ensures that the administrative team has enough appointment availability to care for the active patients – or what I call the "administrative load" of the practice.

At this point, you may be wondering where average treatment time comes into the mix. With regards to clinical efficiency, average treatment time has no impact; however, it has a substantial impact on the "administrative load" of the practice. For sure, average treatment time is important to both the patient and to the practice. I believe that shorter average treatment time can be one of the best "marketing" concepts for the practice. Provided that the shorter treatment times do not negatively affect case acceptance (hint: the goal of a clinically efficient practice should be to have the shortest treatment times possible while managing the patient's financial obligations in such a manner that case acceptance remains high), my experience has been that patients who are in treatment for less time are generally happier and speak more highly of the practice to others. A 300 start practice that averages 18 months of treatment will have 450 active patients, where the 300 start practice that averages 24 months of treatment will have 600 active patients, or 25% more patients that require appointments at any given time. For the administrative team, this means more phone calls, more appointments to change and more accounts to manage – in other words, more "administrative load".

To highlight the relative lack of importance of average treatment time as it relates to clinical efficiency let's look at Practice Two with two different average treatment times. To review, Practice Two does 300 starts, 150 days per year with three assistants. If the average treatment time is 18 months,

then the average appointment interval is 4-5 weeks (18 appointments in 78 weeks). If the average treatment time is 24 months, then the average appointment interval is 6 weeks (18 appointments in 104 weeks). This example also shows that extended appointment intervals are less important than average appointments to complete treatment with regards to clinical efficiency. Another way to view this is to do some math.

SCENARIO 1:

- Average Treatment Time = 18 months
- 300 starts x 1.5 years (18 months) = 450 active patients
- 18 appointments in 18 months = 12 appointments/year = 4 week average appointment interval
- 450 patients x 12 appointments/year = 5400 appointments/year
- 5400 appointments / 150 days per year = 36 active patient appointments per day (not including exams, recalls and retention)

SCENARIO 2:

- Average Treatment Time = 24 months
- 300 starts x 2 years (24 months) = 600 active patients
- 18 appointments in 24 months = 9 appointments/year = 6 week average appointment interval
- 600 patients x 9 appointments/year = 5400 appointment/year = 36 appointments per day

So as you can see, the average treatment time has no affect on the daily quality of life in the practice, as both the 18 and 24 month average treatment time scenarios have 36 active appointments per day. This example also shows that the average appointment interval may not necessarily have an impact on the number of patients seen daily. Further, with either scenario, even the "inefficient" Practice Two has a great quality of life with 300 starts, 150 days per year, 3 assistants and only 36 active patient appointments per day! And finally, it is interesting to note how these numbers correspond to the initial argument – three days per week with three assistants seeing 12 patients per day would equal 36 active patient appointments per day.

WHILE MANY DOCTORS UTILIZE EXTENDED APPOINTMENT INTERVALS TO MINIMIZE THEIR PROGRESSIVE ORTHODONTIC WORKLOAD, THEY SHOULD REALLY BE FOCUSING ON MORE EFFICIENT CLINICAL TREATMENT PROTOCOLS.

SUMMARY

While many doctors utilize extended appointment intervals to minimize their progressive orthodontic workload, they should really be focusing on more efficient clinical treatment protocols. Don't get me wrong, I'm not saying that we should be seeing our patients on 4 week intervals for appointments and that 8-10 week intervals are bad. The point is that simply scheduling patients at longer intervals without focusing on improving clinical efficiency may lead to longer treatment times and a greater "administrative load". While this might provide temporary relief, in the quest to enhance clinical efficiency, the ultimate goal should be to reduce the number of appointments it takes to provide treatment for our patients. To further drive home this point, I'll finish with one final, but extreme example. Imagine that orthodontic technology changed to the point where orthodontists who can properly treatment plan and design orthodontic mechanics could treat all of their patients in two appointments:

- Apply braces
- Remove braces

With a practice completely devoid of progressive treatment appointments, how many days would you need to work and how many assistants would you need? Answer these questions and you'll understand the importance of clinical efficiency as it relates to quality of life, overhead percentage and ultimately PROFIT!

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