Opportunities in the evolving orthodontic industry–digital processes, teledentistry and group practices

Chris Bentson[1], *and Doug Copple*[2]

The orthodontic industry, like all industries, has undergone significant changes and technological advancements in the last decade. Although these changes present challenges and require adaptation, they also allow for additional, more efficient service offerings to patients and additional opportunities and pathways for orthodontic associates and owners. This article discusses some of the more significant trends, including the continuing and accelerating conversion from analog to digital processes, increasing use of teledentistry technologies, and the continued growth of group practices and corporate orthodontics. (Semin Orthod 2022; 28:37–42) *© 2022 Published by Elsevier Inc.*

Introduction

The orthodontic industry, like all industries, has undergone significant changes and technological advancements in the last decade. Although these changes present challenges and require adaptation, they also allow for additional, more efficient service offerings to patients and additional opportunities and pathways for orthodontic associates and owners. The AAO has recognized these changes and recently showcased various practice modality options and career pathways at the most recent Winter Conference held in January of 2022.

Let's start with the impact the Covid-19 pandemic had on orthodontic practices and the acceleration of certain trends and technologies resulting from the pandemic. It was an unpredictable and frightening time when nearly every state mandated non-essential businesses, including orthodontic practices, to shut down in March 2020. Depending on your geographic location, most practices were closed for anywhere from five to twelve weeks, and some were then shut down again later. Since re-opening, orthodontic practices have performed extremely well. According to data provided by Gaidge, which is a practice management analysis tool utilized by over 1,200 orthodontists representing over 2,000 practice locations, 2021 production was up nearly 25% compared to 2020. An increase was expected because of the shut downs in 2020, but

Bentson Copple & Associates, LLC, Greensboro, North Carolina.
Corresponding author. E-mail: info@bentsoncopple.com

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[1]Chris Bentson is a partner of Bentson Copple & Associates, LLC, based in Greensboro, North Carolina. The company serves the orthodontic community by performing practice valuations, providing doctor placement services, and negotiating transactions with both buyers and sellers. He spends much of his time working within the orthodontic industry; he currently serves as a committee member for the AAOFTT (American Association of Orthodontists' Future Think Tank), an advisory committee member for The AAO Bulletin, an advisory board member for Ortho4D, and board member of the AAOF (American Association of Orthodontists Foundation). In addition, he is a frequent guest lecturer at AAO meetings, regional orthodontic society meetings, orthodontic resident programs, study clubs, and orthodontic user meetings. Chris has authored dozens of articles published on the business of orthodontics in numerous orthodontic trade publications. Chris has personally visited over one thousand orthodontic practices in the United States, Canada, and Australia during his career.

[2]Doug Copple is a partner at Bentson Copple & Associates, LLC. He graduated from Appalachian State University where he earned his Bachelor of Science in Business Administration (BSBA) and Master of Science (MS) degree in Accounting. Prior to working with Bentson Copple & Associates, he worked with the national accounting firms Ernst & Young, LLP and KPMG, LLP. Doug is a Certified Valuation Analyst (CVA) and a member of the National Association of Certified Valuation Analysts (NACVA). Doug ensures that the firm's clients are provided with valuation reports of the highest quality that adhere to industry standards. He and his team also represent doctors in buy-outs and partnership transactions to create a transition plan that meets the doctors' financial goals through the most tax-efficient operating structures. His goal at Bentson Copple & Associates is to provide shorter negotiation cycles and stronger assurance of deals reaching completion.

Table 1. Gaidge practice management comparison data.

	2021 vs 2020	***2021 vs 2019***	***Percent Difference 2020 vs 2019***
Net Production	24.77%	16.39%	- 6.72%
Net Collection	16.06%	11.91%	- 3.58%
Starts	21.52%	11.89%	- 7.93%

Source: Gaidge. Practice Management Data Comparison Report. January 1, 2022.

production was also up over 16% compared to calendar year 2019. See Table 1 for a full comparison of production, collections and starts for 2019, 2020 and 2021. The pandemic and the months since have served to accelerate a number of pre-existing trends and the adoption of certain technologies within the orthodontic space. These technologies and trends, which we will discuss in more detail below, include: the continuing and accelerating conversion from analog to digital processes, increasing use of teledentistry technologies, and the continued growth of group practices and corporate orthodontics.

Analog to digital

Similar to nearly every other industry, orthodontics continues to move from analog to digital processes. The shift to digital has been in process for several decades with the introduction of practice management systems replacing paper charting, digital pan/ceph machines and digital scanning systems replacing x-rays and dark rooms, etc. However, the digital revolution has become much more apparent with clear aligners and the digital workflow and digital treatment planning accompanying it. Align, the makers of Invisalign, is the biggest name in the industry in clear aligners and digital treatment planning. Would you believe that Align was founded in 1997 and is actually 25 years old? It has taken many years for the clear aligner revolution to take hold and it is still growing. Aligners represented less than 1% of all orthodontic cases at the start of this century. It is estimated that aligners represented approximately 25% of orthodontic case starts in North America in 2020, and this percentage is expected to increase to 50% or more by 2030. Also, while most associate aligners with Invisalign, there has been an explosion of new companies and established manufacturers offering clear aligners and digital treatment planning, such as ClearCorrect (founded in 2006), 3-M's Clarity™ Aligner, Henry Schein's Reveal Clear Aligners, Ormco's Spark Clear Aligner, uLab, and others. Indeed, most of the traditional bracket companies of the last fifty years offer an aligner today and some have opted out of the bracket business to exclusively offer aligners.

Practices that implement more aligner treatment will need to consider the cost structure and efficiencies in their practice to maintain historical profitability levels. Lab fees for aligner treatment can be significantly higher than traditional brackets and wires, depending on the suppliers used. However, aligner treatment also reduces patient chair time, increases intervals between routine maintenance appointments, requires fewer in-office visits and allows for virtual appointments (more on teledentistry below). This generally means the practice needs fewer team members to treat the same number of aligner cases compared to traditional brackets and bands.

Employee wages and benefits (excluding orthodontists) have historically averaged around 25% +/- of net collections in practices offering traditional braces, while orthodontic supplies & lab fees in these practices have averaged between 12% - 15% of net collections. As aligner treatment becomes a larger percentage of the practice's treatment and lab fees increase, the employee cost as a percentage of collections must be reduced to produce more revenue per employee. The higher lab fees will be offset by the reduction in employee costs, and the practice can maintain similar profitability margins as its treatment offerings evolve in an effort to meet patient expectations.

The digital process does not only pertain to clear aligners. There are multiple new innovative companies that now offer digital custom braces to replace conventional metal brackets. A digital software platform is used to create custom brackets (often created with 3-D printers) or is used to create precision-bent specialty wires which allow for more accurate tooth movement and results in shorter treatment times. Digital braces are expected to continue to grow and take market share from traditional brackets over the next decade. Examples of companies offering digital braces include Inbrace, LightForce, KLOwen, Braces on Demand and others.

All of these digital processes and alternatives to the traditional bracket system aim to provide shorter treatment time and fewer visits to the office, among other benefits. These efficiencies will allow the fully integrated digital practice to produce more revenue per employee than in the analog, traditional, bracket-only practice.

Teledentistry

The pandemic also accelerated the trend to implement teledentistry as an option to many patients. During the pandemic and quarantine periods, more companies added virtual, on-line, and delivery services to customers out of necessity. Most professional services firms instituted work-from-home policies and virtual meetings, and many still have those policies in place, or at least provide the option. Consumers also realized that many of the services they historically had to purchase or receive in person now can be delivered to them, or completed virtually or online through various interactive communication technologies, e.g. Zoom.

We knew of some forward-thinking orthodontists who had begun offering virtual consults prior to the start of the pandemic, but they were rare. The shut-downs all but made it a necessity to consider implementing such services in dental and orthodontic practices. Technologies and applications were quickly implemented in practices to allow orthodontists to perform virtual new patient exams and routine check-ups.[1] Such services are now becoming the norm and requested or expected by patients (or their parents). Examples of teledentistry technologies include Dental Monitoring, SmileSnap, Rhinogram, Grin, Orthodontic Screening and even Zoom and FaceTime.

In implementing virtual appointments and digital workflow, some practices have begun utilizing a "virtual chairside assistant." This team member can work from their own home or at the office, but their sole responsibility is to perform virtual chairside appointments using a teledentistry application to interact with the patient and perform routine checkups. This virtual assistant can see 30 - 40 appointments per day compared to 10 – 14 appointments per chair per day for standard bracket braces and compared to 20 – 24 appointments per chair per day for aligner patients. We recently prepared a quick video to explain this position in a bit more detail based on actual results experienced by Dr. Sean Holliday. Click here to see the video.[2] Implementing these virtual platforms and training team members to provide these services will create efficiencies in your practice and improve profitability, while also providing patients with the flexibility they expect in these changing times.

Group practices

Let's touch on the recent history of orthodontic ownership. Dr. Eric Ploumis has already eloquently summarized much of the history and evolution in his introductory article. We note that as recently as 2019, the AAO estimated that approximately 62% of all orthodontic practices were owned by solo practitioners. Orthodontist-owned group practices represented 18% of practices, and approximately 6% of practices were affiliated with DSOs/OSOs (See Pie Chart in Fig. 1). Our firm focuses solely on change of ownership transactions (valuations, sales, mergers, partnerships) and doctor placement services for orthodontic practices throughout the US. We expect the percentage of solo practitioner owned practices to continue to decline, while orthodontist-owned group practices and DSO/OSO-owned practices will steadily increase over the next decade.

We have personally witnessed an increase in the number of partnership transactions and believe the number of orthodontic owned group practices will continue to increase for various reasons, with some of the most notable being:

- Single doctor practices continue to grow to a point that they need an additional doctor to

[1] *Note that the AAO recommends an in-person examination of a patient before commencing teledentistry treatment. While teledentistry can increase efficiencies and provide additional options to patients, it should not completely replace an in-person examination. See "American Association of Orthodontists' Current Teledentistry Parameters" released on August 28, 2019 by the AAO.*

[2] *Video link is https://youtu.be/ootxGI_IyUA*

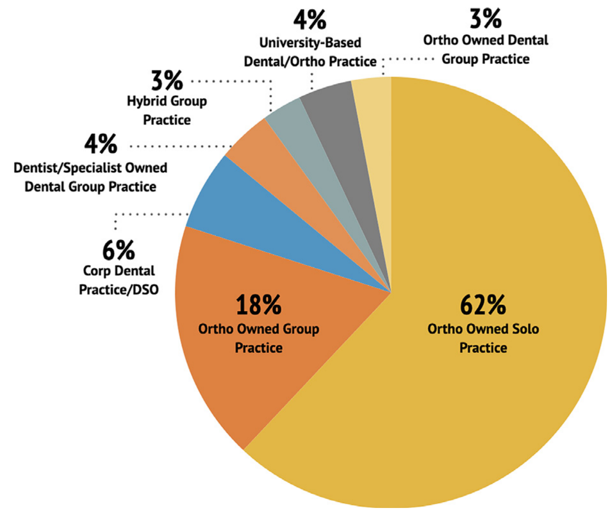

Fig. 1. Practice Modality Breakdown. *Source: American Association of Orthodontics. AAO Membership, 2019.*

manage the production levels. Most associates in today's market want a pathway to ownership rather than being long-term associates with no promise of future equity.

- More doctors, young and old, appreciate the flexibility and security that comes with adding an equity partner to the practice.
- More doctors, some of which are competitors/colleagues in the same market, want to join forces to provide flexibility, hedge against increased competition, continue to grow their practices, and make their practices more attractive to a DSO/OSO in the future.
- As competition increases, growth is more difficult, and practice owners are operating more locations to compete and be closer to their consumer. The investment in capital deployed for multiple locations is better leveraged in group settings where more than one location can be producing on the same day.

Creating a well-crafted orthodontic partnership between two or more orthodontists can be an emotional and complicated process. We focus on multiple aspects when creating a partnership to ensure all doctors enter into the practice with a clear understanding of what is expected of each doctor, the timing of equity purchases/sales and each doctor's estimated financial position throughout the partnership based on the agreed upon ownership and profit allocation model. No matter how much the doctors like each other and want to be partners, if the financial arrangements of the buy-in and partnership do not meet the doctors' needs, they should not proceed with a partnership until the practice grows enough to allow an additional owner. Once the financial arrangements are agreed upon, the terms of the buy-in and partnership must be clearly documented in legal agreements that outline timing, payment structure, operating structure, profit allocation model and buy/sell arrangements between the owner-doctors. In short, whether joining an orthodontic group or a multi-specialty group, ensure you know what you are entering into with all aspects explained and financial arrangements illustrated with financial projections and examples. Partnerships are business marriages. And just like marriages, if they do not work out, the divorce gets really messy.

Corporate orthodontics

I guess we saved the best for last! The hottest topic in the orthodontic world right now is likely the significant growth of corporate dentistry. The largest and oldest dental service organization (DSO) in the nation is Heartland Dental. Heartland was founded in 1997 and now supports more than 2,300 doctors in more than 1,550 offices.[3] While many DSOs support specialty dental practices, including orthodontic practices, most of the largest DSOs focus

[3] *www.effinghamdailynews.com; "Heartland Dental Celebrates DSO Record Growth in 2021." PRNewswire, January 20, 2022.*

primarily on general dentistry. We are now witnessing the creation and growth of orthodontic service organizations (OSO) which focus specifically on partnering with and supporting orthodontic practices. The first, and currently the largest, OSO in the US is SmileDoctors. It was founded in 2015 and now supports over 295 locations in 25 states.[4] There are numerous other OSOs that have formed since then and many other multi-specialty DSOs that are very interested in partnering with orthodontic practices. Dykema, one of the nation's top law firms specializing in DSOs, estimated that 32% of all dental practices were affiliated with a DSO in 2021. While we don't know the exact percentage for orthodontics, we suspect it is less than 12% and is expected to continue to rise in the future.

Private equity groups are looking for new opportunities that can provide a healthy and reliable return on their investments. The orthodontic industry has very strong profit margins, particularly compared to other industries. Also, the quick and dramatic rebound since the beginning of the pandemic is a testament to the resilience of the industry, which also makes orthodontics a very attractive investment. With corporate orthodontics in the early innings, there are still phenomenal returns to be recognized by the groups recently formed and those yet to be created. The opportunity to realize these returns will continue to fuel private equity investments in the orthodontic space. Valuations and offers have actually increased since the pandemic with more corporate buyers competing against one another and driving up the prices paid for quality practices, particularly large practices. However, be aware that OSOs are looking for good partners who will continue with the group for a number of years and contribute to its success. Rarely are offers made, particularly premium offers, to selling doctors who request to depart soon after the transaction.

Owner doctors are also often overwhelmed with changing technologies, regulatory compliance, employee hiring and retention, and marketing and other management responsibilities. DSOs/OSOs take many of these responsibilities off the owner's plate allowing the doctor to focus on what they love and do best, which is clinical orthodontics. We have had multiple clients tell us that they love orthodontics and treating patients, but they were burnt out managing the practice. Joining an OSO was their way to reduce these stresses and obligations and still practice orthodontics, all while receiving a healthy price for their practice with the likelihood of additional returns when the OSO recapitalizes in the future.

There are also changing expectations among younger orthodontists and residents that will likely continue to drive growth in corporate groups. Bentson Copple surveys orthodontic residents each year and we ask what they plan to do after completing their residency. Over the last eight years, the responses have shifted from a majority planning to purchase an existing practice or start their own (over 60% of respondents) to currently less than 35% planning to purchase a practice or start up. This response is being replaced with plans to work in a private or corporate practice as an associate (nearly 55%). The DSOs and OSOs are ready to employ the younger doctors and offer very healthy compensation and benefits packages, often more than private practitioners can afford or are willing to pay. With orthodontic residents carrying an average educational debt of $567,000 (note this is an average – we often see much higher debt loads than this), the promise of a generous, steady income is very appealing and provides them a chance to hone their clinical skills, pay down some debt and/or save money as they consider their future career or ownership plans.

In an attempt to retain associates and avoid turnover, many OSOs are also starting to provide ownership opportunities, both to their current associates through direct purchases by the associate and by offering equity to the associates at practices they are purchasing, often free of charge in return for the associate committing to a multi-year contract. Although it's understandable that an associate working in a practice being purchased by a DSO/OSO is not happy with the sale as it eliminates his/her ability to buy into that practice, we have seen multiple associates very satisfied with the equity offered to them in the transaction. It is a way for them to receive equity and participate in the upside when the group recapitalizes at a higher value/multiple in the future, often without incurring additional debt or spending their own money to purchase the equity interest, all while being compensated

[4] *www.smiledoctors.com; "Smile Doctors Receives Strategic Investment from Thomas H. Lee Partners." January 7, 2022.*

at a healthy rate and having the opportunity to learn about the business of orthodontics.

Summary

As outlined in this article and other articles in this edition, there are many technological changes in the orthodontic industry and multiple opportunities to grow, expand, or improve your practice, all of which can seem overwhelming. However, there are many more opportunities and pathways for younger doctors than in the past, and many more options and opportunities for owners seeking to expand or exit their practices. Get help navigating the current landscape by speaking with your peers and colleagues and utilizing industry consultants. Practices that utilize consultants are more consistent in executing ideas and implementing best practices that create efficiencies and keep them on the cutting edge of relevant technologies. Generally, this means that practices that engage consultants outperform those that do not. Also, if you are considering selling all or a portion of your practice to another doctor or a corporate group, seek the advice of an experienced consultant to assist you through the process because your orthodontic practice is most likely your most significant asset.