

Let's Talk About That

Establishing Value in the Interdisciplinary Patient—Seeing Is Believing—Part Two



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In this issue of “Let’s Talk About That,” I have the pleasure of interviewing Dr. Vince Kokich Jr. for the second part of his article on treating the interdisciplinary patient. In part one of this two-part series on establishing value for the adult interdisciplinary patient, Dr. Kokich discussed two of the three methods he uses to help educate patients regarding the need for orthodontic treatment as a way to facilitate their future restorative treatment or implant placement. As he mentioned in part one, it’s generally pretty easy for orthodontists to visualize and plan preresorative tooth movement. However, it’s also very easy to incorrectly assume that our patients also have this learned ability. This is why he feels it’s critical to provide patients with a way to visualize the value in what we do to set the foundation for what’s to come restoratively and ultimately esthetically.

Dr. Patrick Turley (PT): In part one, you talked about establishing value for the interdisciplinary patient. Could you briefly explain this again?

Dr. Vince Kokich Jr. (VK): Sure. Like I said in part one of this series, I will frequently use the analogy of building a house: the orthodontics is the foundation that the rest of the restorative house will be built on. I find this works well for the simple, wear, or supra-eruption cases because it’s easier for patients to understand the idea of intruding teeth to create restorative space. However, it doesn’t work as well for complex interdisciplinary cases that require a specific sequence of ortho, perio, and restorative treatment. Therefore, we need other ways to aid patients in visualizing the importance of proper tooth position prior to realizing their restorative goals. By successfully educating our patients, we attach value to the recommended orthodontic treatment and improve the chance of establishing treatment value for these patients.

PT: Can you quickly summarize the two methods of establishing value that you discussed in part one?

VK: There are three options that I will utilize to help educate a patient as to why they need orthodontic treatment, especially considering that most patients believe they are only in our offices to appease their dentist who told them they needed to have an eval-

uation. In my experience, there is generally very little patient education that happens prior to their orthodontic exam with regard to why they need it. This is one benefit of being part of an interdisciplinary team and having a reasonable restorative background. The first option I reviewed was the diagnostic orthodontic setup followed by a restorative wax-up. I often use this technique for the patient with multiple missing teeth who requires implants and a full-mouth restorative rehabilitation. The second option I use involves exporting screenshots into my presentation software (Keynote or PowerPoint) from my iTERO scan (pre and post alignment) and modifying them in layers to simulate the restorative treatment to be completed. I find this works well for the patient with worn incisors who needs restorative treatment post-ortho to recreate normal tooth shape and ideal esthetics.

PT: Which visualization technique do you use most often?

VK: The third technique is actually the one I use most often because I’ve seen it have the most impact on patients and provide the greatest educational value. It’s an iPad application you can find in the App Store called Procreate (Figure 1). It’s a drawing program that I stumbled upon a couple of years ago. After playing with it for a few months and seeing how powerful some of the internal tools were, I started to think about other areas where it could be useful. This is when I first began using it to simulate future orthodontic and restorative changes as a way for patients to realize what was often difficult for them to comprehend—the value of the orthodontic piece to this interdisciplinary treatment puzzle. It’s an amazingly powerful way to effectively engage, motivate, and educate patients on the value of what we do orthodontically to the overall success of the interdisciplinary process.

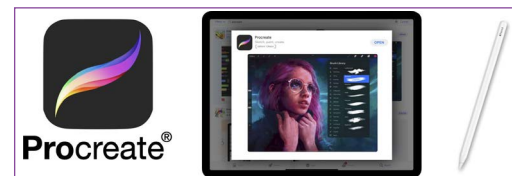


Figure 1

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PT: How does Procreate work?

VK: As long as you have a compatible Apple pencil and the app downloaded to your iPad, you're ready to go. I will do my best to describe the process. However, as is probably fitting for this article, video visualization via YouTube or watching the video tutorials I've posted in my interdisciplinary study club at qlark.com makes it a bit easier to fully understand how to use the Procreate tools. Hopefully the list format attached in this interview will describe the process well enough for you to at least become proficient with Procreate.

The Procreate process:

1. Open the app.
2. Import the photo you would like to alter by dragging it into Procreate (I will open both apps—Procreate and email or photos—in a split screen, which makes it easy to drag [an image] from one program to the other).
3. Once the photo is in your Procreate Gallery, click on it to open it.
4. Following are some general finger tips:
 - a. Two-finger expand = zoom in
 - b. Two-finger constrict = zoom out
 - c. Two-finger slide = move photo in any direction
 - d. Two-finger single tap = undo
 - e. Three-finger single tap = redo.
5. Using the Apple pencil, select the Outline tool at the top left (Figure 2).
6. Using this tool, outline a portion of the photo that you would like to duplicate. Once the outline is completed, copy and paste it to make a new layer (Figure 3).
7. Select the Freeform tool to alter the tooth no. 8 layer in either length or width (select Uniform to alter the layer in length and width equally) and then copy, flip horizontally, and move this layer over the existing tooth no. 9 to create the longer tooth no. 9 simulation (Figure 4).
8. Select the Warp tool to bend the form of the tooth in any direction (Figure 5).
9. Select the original layer and repeat the outline, copy, and paste steps to create another new layer that will simulate aligning tooth no. 10 by filling in the void on the mesial of tooth no. 10. Since the cervical third of the crown looks okay, it's only nec-



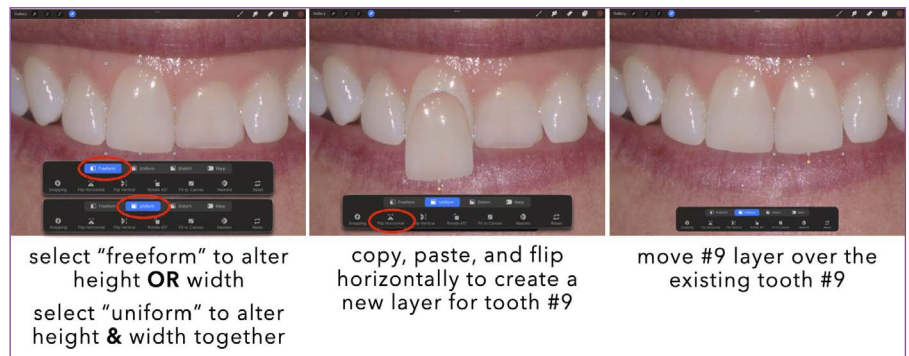
Figure 2



select the "outline" tool to outline area to duplicate

copy and paste to create a new layer for the "new" tooth #8

Figure 3



select "freeform" to alter height OR width
select "uniform" to alter height & width together

copy, paste, and flip horizontally to create a new layer for tooth #9

move #9 layer over the existing tooth #9

Figure 4

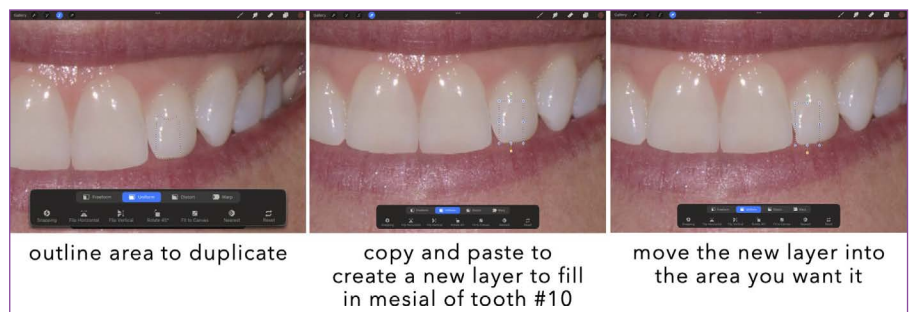


select "warp" to alter shape in any direction

#9 layer warped

#8 layer warped

Figure 5



outline area to duplicate

copy and paste to create a new layer to fill in mesial of tooth #10

move the new layer into the area you want it

Figure 6

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Figure 7



Figure 8

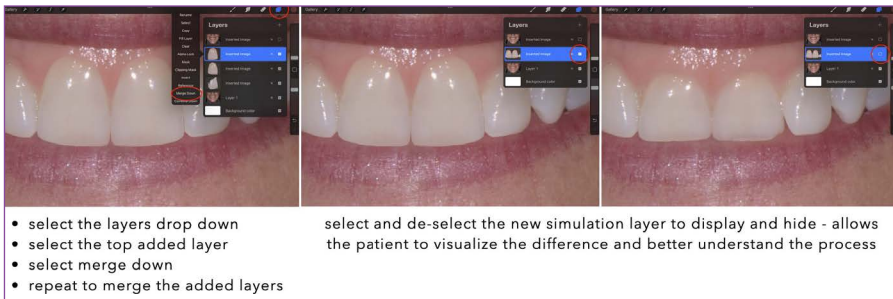


Figure 9

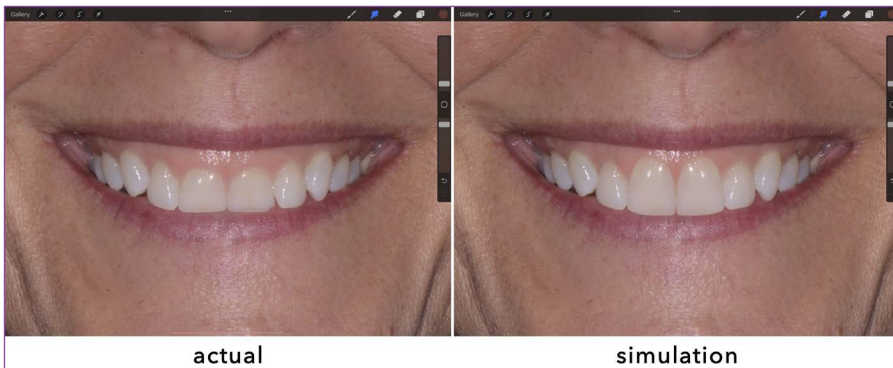


Figure 10

essary to outline a small portion of the incisal two-thirds of the crown to accomplish this (Figure 6).

10. Selecting the Distort tool allows you to alter the angle or stretch the layer as needed. The Smudge tool allows for blending and fine tuning of the final crown shape by dragging color from within the layer you are working to the area you need it (Figure 7).
11. After the Smudge tool has been used in that particular layer, you can use the Eraser tool to further fine tune the margins of the crown to improve the esthetics (Figure 8).
12. Once you are happy with each of your new layers, you can merge them into a single layer. Select top layer first. This will bring up a drop-down menu where you can select Merge Down. These steps can be repeated until you have all of the simulation layers merged into a single layer. Now you are able to select and deselect this layer in front of the patient to allow them to visualize the value of the orthodontic treatment in achieving the final restorative, esthetic outcome (Figures 9 and 10).

PT: This seems a lot like Adobe Photoshop and that it might have the potential to be very time-consuming.

VK: When you are first becoming familiar with the app and learning how to work in layers, just as you would do in Adobe Photoshop, it will likely take you a bit more time. However, the learning curve is not very steep, and I think people will find that they are able to hone their skills relatively quickly. The best way to learn it is just to be hands on with it and practice. Pick a photo you want to alter and play with it. If you have experience with Photoshop, you will probably be more familiar with some of the tools and understand the overall process a little better. However, it's really easy for the beginner to learn as well. I personally find it to be very creative and actually a lot of fun. In fact, it's really easy to burn a lot of time on it without even knowing it. The best advice I could give to someone just starting out is to start small, perhaps a narrow maxillary lateral incisor that requires restorative build up. Once you become more proficient with the program, you will be able to efficiently tackle more challenging simulations.

PT: I know one reason many oral surgeons don't use surgical simulation programs is because they don't want patients to "expect" a specific, esthetic outcome

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postsurgery. How do you manage patient expectations when you show them a simulation?

VK: This is a great question, and it's one that I spent a lot of time thinking about before offering this visualization technique to my patients. When showing a patient an ortho/restorative simulation, it's critical to make sure they understand that that's exactly what it is—a simulation to help them realize the impact that orthodontics can have on the final restorative/esthetic outcome. They should not expect that it will look exactly as it does in the simulation. The reality is that the final result will likely appear more natural and more esthetic. I can think of several instances in which I created a simulation and decided not to show it to the patient because either the simulated result wasn't clinically realistic or the complexity of treatment or clinical ability of the restorative dentist made it inappropriate. I always suggest soliciting input from the referring dentist because we can't forget that they are the ones who have to try and create what we simulate. I also recommend obtaining approval from the dentist prior to showing any complicated simulation to a patient. This helps to ensure that you don't put your referring dentist in a difficult situation that could negatively affect the number of future referrals you receive from that particular dentist!

PT: What types of patients do you consider to be more ideal for real-time presentation in front of the patient at an initial exam or consultation appointment?

VK: I think the ideal scenario would be the patient who has a relatively nice arrangement of teeth and only an isolated discrepancy, such as a narrow lateral incisor or worn central incisors. As your proficiency improves with this technique, you will be able to create these simulations in a couple of minutes. I have done it both in front of the patient and before I walk into an exam so it's available to show them at the appropriate time. I feel comfortable showing these basic simulations to patients without approval from the dentist because I know the predictability with which these types of treatments can be carried out.

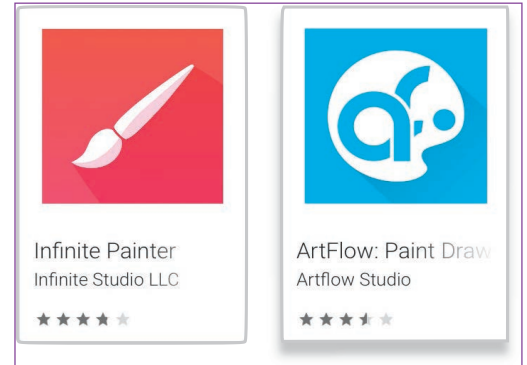


Figure 11

PT: Is there a Windows or Android version for Procreate or is it only for the iPad?

VK: This is a valid question and one that I'm asked quite often. I can't answer this with 100% certainty because there are several different versions of Procreate available in the Google Play store. I honestly don't know which of them is most similar to the iOS version of Procreate for the iPad, but none of them seem to have stellar reviews. I also did a YouTube video review of alternative Android drawing apps and found a few quality options. Two that received high marks and are considered to be most similar to Procreate are Infinite Painter and ArtFlow (Figure 11).

PT: Do you feel that implementing this technique in your practice has increased the number of adult patients who ultimately convert to treatment after their exam?

VK: Absolutely! It's like I said in the beginning, believing is seeing. Patients only see what they know and only know what they see. Therefore, unless we help them "see" the possibilities, they will never be able to understand the true value of orthodontic treatment in achieving their ultimate goal of esthetic and functional success.

PT: Dr. Kokich, thank you so much for taking the time to discuss the methods you use to educate patients on the value of orthodontics for the interdisciplinary patient. I know our readers will benefit from your experience in using these techniques. ♦