ABSTRACT

This article outlines how cosmetic dentists can enable dental assistants to elevate their competence in the procedures required to provide comprehensive esthetic care; their understanding of the technologies and materials used in practice today; and their familiarity with the principles of smile design. By broadening the scope of the dental assistant’s day-to-day routine, the stressful issues of patient care, control of supplies, cleaning and sterilizing instrumentation, and communicating with the doctor become less pervasive in the context of a supportive, team-oriented practice environment.

Cosmetic dental teams can deliver complete care by ensuring that the entire team understands what is involved with the treatments being performed.

INTRODUCTION

Dental assistants help dental operators (dentists or other treating dental auxiliaries) provide more efficient dental treatment. Dental operators therefore can focus more time on providing treatment when assistants oversee necessary but sometimes mundane tasks by effectively becoming the operator’s extra hands.1

That is truly a simplistic definition, and I believe dental assistants can be much more valuable to the cosmetic dental practice than that description suggests. When asked recently to present a comprehensive lecture about the modern definition of dental assistants, I not only presented a course designed to enhance an assistant’s understanding of the clinical aspects of what we do every day, but I also attempted to motivate them with an education about the human side of dental assisting and team building.

INTEGRATION OF LEADERSHIP AND MENTORING

Cosmetic dental practitioners can use the training concepts I incorporated into this lecture to help their assisting staff better understand contemporary esthetic procedures. An excellent reference for this is Dawson’s book, Functional Occlusion: from TMJ to Smile Design.2 This understanding will enable members...
of the dental team to provide their patients with beautiful, functionally correct dentistry and, along the way, achieve personal and professional growth. What will be required to achieve this objective is an integration of leadership and mentoring in the day-to-day processes. Cosmetic dental teams can deliver complete care by ensuring that the entire team understands what is involved with the treatments being performed. In addition to demonstrating the technical skills required, the team takes responsibility for key functions.

**Initiating Comprehensive Care**

**Records Gathering**

During the records gathering process, explain to your dental assistant what is being done, by whom, and why it is so important to providing complete restorative care. By elaborating on the fact that the complexity of today’s treatment plans requires proper case planning, cosmetic dentists can help dental assistants accept more responsibility for their part of the process. After all, this phase is absolutely essential for a successful outcome. Dental assistants should know that during the records appointment, clinicians look for signs of instability, as well as visualize any necessary changes to the patient’s dentition, either to help them attain a specific esthetic goal or to solve an underlying functional problem.

**Empowering Your Assistant**

Empower your dental assistant with the ability to determine what is needed for specific types of cases. For example, a full occlusal analysis, utilizing mounted diagnostic casts, is not required for every patient, but it is required for patients considering advanced restorative procedures, elective cosmetic/esthetic dentistry, or those with signs of instability (i.e., tooth wear, mobility, migration, tenderness to muscle palpation, or issues with the temporomandibular joint). Instruct your dental assistant about when this type of analysis will be necessary.

**Explaining the Diagnostic Wax-up Process**

It is very easy in the hustle and bustle of a busy dental practice to lose sight of what is being done and why. It is validating for dental assistants to know that their work is an integral part of a complete care process. Therefore, to instill a sense of meaningful satisfaction, be sure the diagnostic wax-up process is understood. Explain that after the diagnostic casts are mounted, a duplicate set of models for a diagnostic wax-up will be needed. Elaborate that it will be from using the digital photographs and mounted casts that the functional and esthetic requirements can be visualized by the restorative team and transferred to the diagnostic wax-up. Make it your dental
assistant’s responsibility to ask the patient to bring in a photograph of a smile they like, whether their own from earlier days or anyone else’s. Explain that this will be the basis for visualizing the patient’s expectations. Also, note that the diagnostic wax-up is the best estimate of the final outcome of the case, and that this approved esthetic mock-up will be used as a matrix for preparation guides and provisional fabrications. When your team members know what is happening and why in the sequence of clinical events, they are better equipped to anticipate your needs. For example, your dental assistant most likely will always know that you perform final contouring of the provisional restorations (Fig 3) in the mouth for optimal functional and esthetic success.

**Fabricating Provisional Restorations**

As mentioned earlier, an astute dental assistant will be aware of where in the treatment process a case is and will anticipate your needs. Likewise, an informed and knowledgeable assistant understands that provisional restorations are a key component for predictability in the restorative process. The ability to adjust them for ideal esthetics, phonetics, and function is part of the protocol, as discussed. But does your dental assistant know the decisions that are made regarding the precise position of the maxillary incisors? Because there is a plethora of potentially confusing information about where the incisal edge should be, cosmetic dental practitioners should be the authority in educating their assistants about how these decisions are made. For example, explain that maxillary teeth should be far enough forward to provide proper lip support and have a proper two-plane contour to allow proper closure of the lips (Fig 4).

**Writing the Laboratory**

Writing the laboratory prescription should begin with identifying the patient’s name, age, gender, and tooth numbers to be restored. Have you properly instructed your staff in how to complete your laboratory prescriptions to ensure clear and detailed communication? Are they aware that indicating the specific type of restoration and material choice(s) is also important?

To avoid any confusion or misunderstanding, provide your dental assistant with examples of crown, bridge, veneer, inlay/onlay, Maryland bridge, partial denture, and denture prescriptions. These should be precisely dictated, as in the following example:

Please fabricate zirconia restorations for teeth ##4-13 and ##20-29.

1) Mount model of temporaries with facebow and enclosed bite registration.
2) Mount lower die model with record marked upper temps/lower temps.
3) Mount upper die model with record marked upper preps/lower preps.
4) Fabricate labial matrix and custom guide table.
5) See preoperative, preparation, and provisional photographs.
6) Use shade B1, with mild incisal translucency.

**Reinforcing the Principles of Smile Design**

Again, in the midst of serving as a dental operator’s “extra hands,” it can be easy to lose sight of why certain protocols are being followed. The mentoring cosmetic dentist will ensure that his or her dental assistants understand how what they are doing relates to the principle of smile design. For example, pointing out that asymmetric facial features—such as the eyes in different planes—are not useful reference points in determining the smile line is a good opportunity to reinforce the need to use a facebow transfer to ensure proper and accurate alignment. Of course, sharing observations about the significance of the midline, how the appropriate gingival contour will be established and why, and the appearance of the patient’s buccal corridor will help to familiarize your dental assistant with the objectives of the smile design plan.

However, to fully comprehend what is happening, as well as to have sincerity and empathy for patients, your dental assistant may need to experience the smile design process for herself or himself. Understanding the procedure and what the patient is going through not only gives dental assistants the ability to educate patients about the steps involved in the treatment plan, but it also gives them empathy for our patients. For example, I myself was in provisional for several months. That experience taught me to truly appreciate my dental professional and the entire dental team, and it is a great experience to relate to patients.

**Applying Dental Technologies and Materials**

Manufacturers and research organizations are trying to make it easier for all dental professionals to become more efficient, effective, productive, and profitable while simultaneously ensuring predictable clinical performance. Because dentistry is a science as well as an art, dental assistants should be familiar with the literature about clinical performance of the materials and equipment used in the cosmetic practice. However, the information that I have found to be most relevant to dental assistants includes evaluations about dispensing design, storage conditions, and simplicity of instructions.

Among the technologies that dental assistants should be trained to use are digital cameras. They are, in fact, becoming standard pieces of equipment in the modern dental office and part of comprehensive treatment planning (Fig 5). When your dental assistant has been trained on the use of a complete digital system, instead of simply describing the problem or issue at hand, you and the patient will be able to view intraoral images on a computer monitor at the same time.

Additionally, the introduction of a new chairside computer-aided design/computer-aided manufacturing (CAD/CAM) restorative system (e.g., E4D, D4D Technologies; Richardson, TX) has the potential to elevate the dental assistant’s role to one of chairside dental designer (Fig...
6). This system includes a graphic interface that is logical and precise, allowing a faster learning curve and an intuitive process for scanning, designing, and milling a restoration.

**CONCLUSION**

Talented team members yearn for a practice in which they can realize better opportunities for themselves, now and in the future. While the modern dental assistant has endless possibilities in and out of the dental practice for growth and achievement, helping to expand their vision, capabilities, and accomplishments chairside is a great way for cosmetic dentists to contribute to their dental assistants’ overall growth. This growth will not be limited simply to technical skills development, but rather will expand into every area of their lives as they are empowered with greater utilization of their strengths. In this regard, cosmetic dentists can be leaders in their practices and inspire their dental assistants to be valuable and integral members of the comprehensive diagnostic and restorative team.

**AACD Acknowledgment**

The American Academy of Cosmetic Dentistry (AACD) recognizes Shannon Pace Schmidt as a member of the AACD Board of Directors.

**References**