OF THE CALIFORNIA DENTAL ASSOCIATION

Journal

FEBRUARY 2007

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DEPARTMENTS

FEATURES

CDA JOURNAL, VOL 35, Nº2

Love Is a Two-Way Street

STEVEN A. GOLD, DDS

Previously in this column, in this very month, we have commented on some of the events that occur in February: National Children's Dental Health Month, Black History Month, and Give Kids a Smile. Yet, the most popular day in February, the 14th, has remained largely ignored in dental literature. Sure, there is widespread cynicism about the commercial emphasis placed on Valentine's Day; but at its heart, Valentine's Day really is just a celebration of love. They are fortunate who share love with others, whether it be a spouse, significant other, parents, children, or pets. Our chosen profession is also deserving of love, and since so many of us truly love dentistry, it seems only natural to reflect on this fact, in this month.

For those dentists who don't love their profession, I feel sorry and a bit confused. Sorry because everyone should love what they do for a living. Confused because I do not understand why anyone would pursue a career they did not love in the first place. Life is too short, and our time on earth too precious, to be in a career we do not love.

Love has been described as many things: a red rose, a many-splendored thing, a battlefield (thank you, Pat Benatar), but when we see love as a two-way street, we get our most insightful glimpse at how it can best be grown over time. Once, I asked my wife's grandmother how she and her husband stayed happily married for more than 60 years. Her reply was, "A lot of give and take, and usually more giving than taking." Similarly, someone once quipped, "Love is stuff that does not abide by the laws of physics. The more you give away, the more you have." And so it is with dentistry as well.

Dentistry offers us the personal satisfaction that comes from providing a service to people that enhances their quality of life.

There are many things dentistry has to offer us. We can earn a good income that affords us a great deal of comfort and security. As members of one of the most highly respected professions, we are often looked up to as contributors and leaders within our communities. Dentistry offers us the personal satisfaction that comes from providing a service to people that enhances their quality of life. We remain one of the few health care professionals who are able to own their own practice and run it as a viable business. This in turn affords us a high level of freedom in choosing the way we practice, the people we work with, the type of patients we see, and the number of hours and days we work. Part scientific-based logic and part artistic creativity, dentistry can truly satisfy both the right and left sides of our brains simultaneously. Anticipated high demand for our services means we will likely have work as long as we want it. The breadth in scope of our profession and the difficulty in mastering its skills all but guarantee we cannot grow bored with our chosen career. High technology permeates dentistry, and there is a certain joy and pride from being the instruments through which this technology benefits the population's health.

For all that dentistry has to offer, what can we give back to our profession in return? There are three general ways in which all dentists should consider giving. The first is the gift of time and service. Examples of this would be donating dental services to the underserved either at one's office or an off-site facility or clinic. Another would be volunteer teaching. Some may prefer to serve on the faculty at one of our dental schools. Others may opt for volunteering as a mentor to a dental student or young dentist. Another avenue for donating time and service is through volunteering in organized dentistry. Some generous individuals, of course, manage to do all of these or find other ways to serve.

The second way to give to the profession of dentistry is by giving money or other tangible donations like equipment. Our profession has too many causes worthy of our monetary gifts to name here. But I will take the privilege of mentioning a few that are particularly deserving. The first is called Dental Education: Our Legacy — Our Future. This cause seeks to address the worsening crisis in dental education by funding the hiring of qualified faculty, alleviating skyrocketing student loan debt and upgrading outdated and deteriorating facilities and equipment. If for no other reason, consider giving to this project to honor

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the individual who conceptualized it. Dr. Art Dugoni will surely go down in history as one of the great contributors to, among other things, modern dental education. Give to one of our tripartite's foundations to directly help improve the oral health of the public on a grand scale through their many individual causes. Donations are, of course, welcome at our association's political action committees. Your dollars will be spent to fight for the best possible legislative outcomes and to forge relationships with our elected officials that will profoundly affect oral health care and the practice of dentistry. Finally, before disposing of your old dental chair, remember there are many clinical settings worldwide that would be glad to accept donations of equipment and supplies. Seek them first before adding more to our landfills.

The third way to give to our profession is through respect. Respect for dentistry is a gift we all should give and it costs nothing. It comes through caring enough about our professional legacy to practice in an ethical manner, treat patients, staff and colleagues with fairness and dignity, and eschew the philosophy that the most important end is the last line of your tax return, and any means needed to inflate it are justified. Respect for dentistry is demonstrated by the choices we make in our character and the direction we set our moral compasses.

While February is an appropriate time to reflect on our love of dentistry, like all relationships, it requires ongoing effort. What a shame it would be to let a love this good slip away. At the end of a life well lived, marked by those gifts we have both received from and given to our profession, we should be able to reflect on dentistry and feel something akin to Shakespeare's sentiment when he penned these words: "For thy sweet love remembered such wealth brings, that then I scorn to change my state with kings." ■■■■

Address comments, letters, and questions to the editor at alanfelsenfeld@cda.org.

Give Priority Treatment Time to Returning Veterans

The 2006 American Dental Association's House of Delegates urged dentists across the country to offer "priority treatment time" to combat veterans returning from active duty.

The House discussed the matter in response to the Department of Veterans Affairs appeals for private practice help in meeting service-related dental needs of combat veterans. Robert T. Frame, DDS, assistant undersecretary for health for dentistry for the VA and a decorated veteran of combat service in Afghanistan and Iraq, addressed the House of Delegates in Las Vegas last October.

"I am incredibly proud of our profession and of you, my peers, who represent

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Toothtunes ↑

Tiger Electronics, a division of Hasbro, Inc., delivers TOOTHTUNES, a brand-new toothbrush featuring technology that will encourage people of all ages to brush for two full minutes, the amount of time recommended by dentists. TOOTHTUNES' safe and patented technology transmits songs and music vibrations through the teeth, which are then heard in the inner ear. The revolutionary toothbrush uses a microchip that provides hit music from the industry's hottest artists, including Black Eyed Peas, Hilary Duff, Destiny's Child, and Kelly Clarkson, among others. Users will hear two full minutes of the hottest music from today's biggest stars and some brushes will feature a congratulatory message upon completion. Available this month nationwide, TOOTHTUNES retails for $9.99 and includes three AAA batteries. For more information, visit www.toothtunes.com.

Mercy Ships International

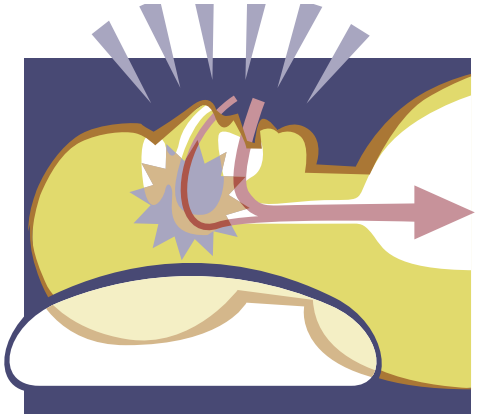
Dentists Can Volunteer With Mercy Ships

Today, of the 22 million people living in Ghana, fewer than 400 are dentists. This startling fact was reported in a recent issue of the *Pennsylvania Dental Journal*. The article, one of several in an issue dedicated to volunteerism, described the activities of Mercy Ships, a global charity organization committed to bringing medical and community services to developing nations.

Among the services, which total $600 million, performed in underdeveloped countries, Mercy Ships has provided 162,000 free dental procedures.

Dental professionals interested in more information should contact Mercy Ships human resources at jobs@MercyShips.org or go to www.mercyships.org.

Mercy Ships crews are made up of volunteer professionals from around the globe such as physicians, dentists, nurses, community developers, teachers, cooks, seamen, engineers, and others. More than 2,000 short-term volunteers annually join 1,000 career staff and crew from more than 40 nations.



Recognizing Sleep Apnea in Your Patients

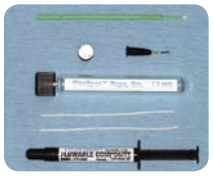
Reported loud snoring accompanied by pauses in breathing throughout the night are a few signs dentists can best recognize obstructive sleep apnea syndrome in their patients.

Archie Morrison, DDS, MS, director of graduate training in oral and maxillofacial surgery at Dalhousi University, Halifax, Nova Scotia, in an issue of the *Journal of the Canadian Dental Association* also wrote of other symptoms including morning headaches, daytime somnolence, and impaired thinking. These symptoms are typically reported by the patient's sleeping partner either to the patient or directly to the doctor. Although the typical sleep apnea sufferer is a middle-aged, overweight male, not all patients have this stereotypical profile, according to Morrison.

Sleep apnea occurs when a person's airway becomes fully or partially obstructed, and the level of blood oxygen drops, blood pressure and heart rate fluctuate, and sleep is disturbed. The long-term effects of sleep apnea can be pulmonary hypertension, cardiovascular difficulties, and heart failure.

Morrison said a questionnaire like the Epworth Sleepiness Scale or overnight pulse oximetry can help screen patients for obstructive sleep apnea syndrome. Only a full polysomnogram is diagnostic. However, lateral cephalometric radiography allows the assessment of the posterior pharyngeal airway space and can be a useful diagnostic tool.

A dentist who suspects a patient may have obstructive sleep apnea syndrome should refer him or her to a sleep specialist for assessment.



GlasSpan Single-use Trauma Kit →

GlasSpan Inc. announces the addition of a Single-use Trauma Kit. The new kit includes everything necessary to quickly and easily stabilize injured teeth without the use of metallic wire. The average time to place the splint is 10 minutes. Enough material is supplied to stabilize two arches. Oral surgeons, endodontists, periodontists, as well as hospital, government, and community dental clinics will find the kit particularly useful, eliminating the need to purchase the components from multiple sources. The GlasSpan Single-use Trauma Kit retails for $69. For additional information or to place an order, contact GlasSpan Inc., www.glasspan.com, or call (800) 280-SPAN.

Dig This: Ancient Tombs of Egyptian Dentists Found

A group of grave robbers digging around Egypt's oldest pyramid has led authorities to discover the ancient tombs of three dentists.

According to a report by *Voice of America News*, after examining the area where thieves had been digging just outside of Cairo, archeologists decided to continue the unearthing. Ten meters under the sand was a burial complex for three dentists who worked in the service of the pharaoh during Egypt's Old Kingdom. Experts were able to identify the profession of the deceased by the signatory tooth under each hieroglyphic title on the walls of the tomb. The discovery dates the practice of dentistry back nearly 5,000 years.

Until now, Egyptologists only knew of one other reference to a dentist in ancient Egypt. His name was found engraved on a tomb wall, also signed with a tooth. Egypt's director of antiquities, Zahi Hawass, said the latest discovery is important because not only does it offer greater proof that dentistry was practiced in pharaonic times but also shows the respect the king had for those who provided his dental care.

Hawass said the dentists' burial next to the king's pyramid indicated they were being honored for their service.

UPCOMING MEETINGS

2007	
April 15-21	United States Dental Tennis Association, Sarasota, FL, www.dentaltennis.org
April 17-21	American Academy of Oral Medicine Annual Meeting, San Diego, www.aaom.com
May 3-6	CDA Spring Scientific Session, Anaheim, (866) CDA-MEMBER (232-6362)
June 27-July 1	Academy of General Dentistry Annual Session, San Diego Convention Center, (888) 243-3368
Sept. 27-30	American Dental Association 148th Annual Session, San Francisco, www.ada.org
Nov. 27-Dec. 1	American Academy of Oral and Maxillofacial Radiology 58th Annual Session, Chicago, www.aaomr.org
2008	
May 1-4	CDA Spring Scientific Session, Anaheim, (866) CDA-MEMBER (232-6362)
Sept. 12-14	CDA Fall Scientific Session, San Francisco, (866) CDA-MEMBER (232-6362)
Oct. 16-19	American Dental Association 149th Annual Session, San Antonio, Texas, www.ada.org

To have an event included on this list of nonprofit association meetings, please send the information to Upcoming Meetings, CDA Journal, 1201 K St., 16th Floor, Sacramento, CA 95814 or fax the information to 916-554-5962.

ADA Personalized Products

The American Dental Association has announced the launching of Personalized Products, a new line of practice-building items. More than 200 products will feature all new, exclusive ADA designs to assist in practice development and recognition. The ADA symbol, shown next to a practice's name, adds to the practice's authority and visibility in its community. Personalized paper products include recall and reminder cards, business and appointment cards, patient education brochures, coloring books, and letterhead. Best of all, the ADA will ship all items within 24 to 48 hours and personalize them free of charge. Members and past customers will receive a free Personalized Products Catalog from ADA. To order online, go to www.adacatalog.org or call (800) 947-4746.

Dementia Sufferers Can't Always Communicate Needs

Too often, senior citizens suffering from dementia often endure oral pain because their mental state prevents them from communicating their needs, said Michael Sigal, DDS, in the September 2006 issue of *Oral Health*.

"Behavior problems frequently observed in the demented, such as lack of interest in eating, lip chewing or smacking, tongue chewing, self-abuse, i.e., head slapping, aggressive behavior, altered sleeping patterns, crying, and screaming, could be a result of oral pain and the patient's frustration over the inability to communicate that problem to caregivers," Sigal wrote.

He recommended that patients with dementia who are admitted to long-term care facilities have comprehensive oral assessments performed, preferably completed by dental professionals.

Since oral function begins to decline with the onset of dementia, Sigal said it is important to determine the oral health needs of new long-term care residents immediately, and to provide the required treatment.

He also acknowledged that the greatest barrier to providing adequate daily preventive oral care and required dental treatment to patients with dementia is lack of cooperation and difficulties with communication. Sigal also said it is important that training long-term care staff to help administer daily oral care to patients is key, adding that most oral health care needs of long-term care dementia patients are administered by family members or the least educated facility staff.

"Our goal should be to sustain good oral health for demented adults, who, for the most part, tried to maintain good oral health throughout their lives, in order to ensure that they are free from oral pain and infection during the final phase of their lives."

"Behavior problems frequently observed in the demented,... could be a result of oral pain and the patient's frustration over the inability to communicate that problem to caregivers."

MICHAEL SIGAL, DDS

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Latex Gloves Aren't Always the Cause of Rashes

Compared to the general population, health care workers, including dental professionals, are at least twice as likely to develop allergic contact dermatitis. This is mainly due to their greater chances of handling chemicals and specially treated latex, wrote Curtis Hamann, MD, Pamela Rodgers, PhD, and Kim Sullivan, in the fall 2006 issue of *The Dental Assistant*.

The authors cautioned that when allergic contact dermatitis is not diagnosed properly, skin problems can linger for years with significant effects on the sufferer's career and health. They emphasized that self-diagnosis or even incomplete diagnosis or misinterpretations of symptoms by physicians are obstacles to treating allergic contact dermatitis effectively.

The common perception that skin reactions are always due to natural rubber latex or gloves is incorrect. Dental professionals should be aware of all the chemical allergens they handle and the appropriate way to treat reactions. Allergenic chemicals can be found in a number of products used in dental settings, such as disinfectants, preservatives, and bonding agents.

The most important thing dental professionals can do to take care of skin reactions is to guard themselves with an understanding of the chemicals they are exposed to at home and work. Collecting chemical content information from products used in the dental office can help identify possible methods of exposure and potential chemical allergens.

Honors and Awards

Marc Geissberger, DDS, ME

Marc Geissberger, DDS, ME, of San Francisco, chair of the department of restorative dentistry at University of the Pacific Arthur A. Dugoni School of Dentistry, has been named a fellow of the Leadership Institute of the American Dental Education Association.

Gordon L. Douglass, DDS, was named the 2006 recipient of the American Academy of Periodontology Gold Medal Award, the highest honor bestowed by the AAP. The annual award recognizes a member for his/her outstanding contributions and services to the Academy and understanding of the field of periodontology. Douglass maintains a full-time private periodontal practice in Sacramento and Folsom, Calif.

Brian Black, DDS, assistant professor, restorative dentistry, Loma Linda University

Brian Black, DDS (left) and Tim Harbolt, DMD

School of Dentistry, left, receives the Academician Award from Tim Harbolt, DMD, president of the World Congress of Minimally Invasive Dentistry, during the organization's annual meeting in Seattle, Washington. The honor is in recognition of his contributions to the academic community and the profession advancing the art and science of minimally invasive dentistry.

Scrapers Help Battle Bad Breath

An estimated 40 million Americans suffer from the heartbreak of halitosis and tongue scrapers can be of some use in battling the malady, that's according to a recent study published in *General Dentistry*.

Halitosis is a term used to describe any disagreeable odor of expired air. Bad breath is a generally accepted term for foul smells coming from the mouth. "Oral malodor" is reserved for unpleasant smells originating from the oral cavity.

June Lee, DDS, MAGD, said post-nasal drip, "which coats the back area of the tongue with bacteria-rich mucous," is a common reason for bad breath. "A tongue scraper is often effective in relieving oral malodor caused by sinus drainage."

Literature examining the effects of using tongue scrapers to brush the tongue, as opposed to using a toothbrush to do the job was reviewed. Researchers found that a tongue cleaner or scraper had better results than a toothbrush in reducing "volatile sulfur compounds levels, which are produced when bacteria and amino acids interact to produce bad breath."

Some people avoid offensive foods and drinks, chew gum, use mouth rinses, or eat mints to mask unpleasant odor. While there is no standard treatment, bacteria-causing halitosis can be reduced by scraping or brushing the back and middle of the tongue. Additionally, tongue scraping can lower the volatile sulfur compound concentration, subsequently reducing oral malodor.

"A tongue scraper is often effective in relieving oral malodor caused by sinus drainage."

JUNE LEE, DDS, MAGD

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"I am requesting your assistance, not only on behalf of the Department of Veterans Affairs leadership but on behalf of the brave men and women who so nobly defend our country."

ROBERT T. FRAME, DDS

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the values of our great nation," he said. "I bring you two messages, one of appreciation and the other a call to service, a call for partnership. I want to thank the American Dental Association, particularly the leaders of this august body, those who serve on the Council on Government Affairs, and every dental professional represented here who provides outstanding care to our service men and women both during and after their active duty.

"The VA refers many of these great Americans to many of you and we genuinely appreciate the superb care you and your staffs have provided our veterans," Frame said, adding the VA aims to provide care in a timely manner but cited delays in some geographic locations of 60 to 90 days, "sometimes more," for patients seeking dental appointments.

"I am requesting your assistance, not only on behalf of the Department of Veterans Affairs leadership but on behalf of the brave men and women who so nobly defend our country, to give priority to returning service members when scheduling appointments as they transition back into their communities."

Frame, an ADA House delegate, was ambushed in both theaters of war and was wounded in Iraq. In recognition of his military service, he received a Bronze Star Medal with "V" (representing valor) device for combat heroism, and a Purple Heart.

In an Oct. 9, 2006, letter to Robert Brandjord, DDS, now immediate past president of the ADA, another top VA official said the VA is falling behind on dental care for returning veterans.

"Unfortunately, it may take months for new patients to receive dental appointments," said Gordon Mansfield, deputy secretary of veterans affairs. "I believe that with assistance from the American Dental Association we can provide dental care more expeditiously to veterans through VA's fee basis program.

"I am confident that members of the ADA are willing to assist us in meeting the needs of veterans, especially now with our returning Operation Enduring Freedom and Operation Iraqi Freedom service members," said Mansfield, who also requested that priority scheduling be given to veterans.

The VA has asked that private practice dentists treat eligible veterans when VA dentists are unable to do so in a timely manner.

Even in Emergencies, Include Complete Information in Referrals

When making referrals, it is generally accepted in the practice of dentistry to provide specialists and patients with documentation. The content of information contained in these letters can facilitate the accurate exchange of patient information as well as serve as a foundation for dialogue between the practitioners.

In a recent issue of the *North Carolina Dental Gazette*, Donna Mack, DDS, wrote about what important data should be included in the letter. Among them are:

- Introduction of the patient;
- Diagnostics available;
- Treatment completed;
- Prognosis;
- Treatment plan, including alternative options;
- Clearly defined areas and/or problems for evaluation by the specialist; and
- Request for written consultation and treatment report.

Mack added that even in situations when emergency referrals are necessary in mid-treatment, a written statement that can be carried by the patient or faxed is crucial. If a telephone referral is absolutely necessary, Mack recommended that both sides — the referrer and the specialist — take comprehensive notes of the conversation.

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Recommended vs. Alternative Treatment Options: Is One Enough?

A jury recently awarded more than $80,000 to a patient for replacement costs of veneers, as well as possible future procedures. The patient claimed the dentist did not provide adequate informed consent prior to placing veneers on teeth Nos. 6-11 and that the treatment was below the standard of care.

WELCOME TO THE NEWEST SECTION OF *THE JOURNAL OF THE CALIFORNIA DENTAL ASSOCIATION* — RISK MANAGEMENT CASE STUDY.

Once a quarter, the *Journal* will feature a TDIC risk management case study, which provides analysis and practical advice on a variety of issues related to liability risks. Authored by TDIC risk management analysts, each article presents a case overview and real-life outcome, and reviews learning points and tips which everyone can apply to their practice.

Previously, these types of case studies were featured in *Liability Lifeline*, a quarterly newsletter from TDIC's Risk Management department. For your convenience, these articles have been incorporated into the *Journal* format.

Background Information

In July 2003, a 50-year-old female presented to her general dentist requesting treatment to straighten and lighten her teeth. She explained she had always been self-conscious of her smile and had been saving money to have them "fixed" before her daughter's wedding in October.

The dentist performed a thorough exam and recommended veneers on her anterior teeth Nos. 6-11. The patient questioned whether the treatment would be complete before the wedding. The dentist assured her it would be done by then.

The following week, the dentist prepared her teeth for the veneers and scheduled a cementation appointment for three weeks. At the second appointment, the patient approved the veneers' shape and color. She was extremely happy with the outcome and chose to have the veneers permanently cemented at that visit.

Over the course of the following two weeks, two to three veneers would "pop-off" weekly requiring recementation. Anxious about her daughter's wedding, she wanted some assurance that the veneers would remain in place. The dentist could not account for the displacement of the veneers and assumed it was a possible defect in the bonding material. He recommended removing all the veneers, having them remade and cementing them with a different material. Since time now was an issue, he also chose a lab that had a faster turnaround time than his regular lab.

After replacing the veneers, the problem still was not resolved. The dentist explained to the patient she would need to have full porcelain crowns placed on teeth Nos. 6-11. The patient told the dentist she did not want to have anything else done and would just live with her teeth as they were before the veneers were placed. He told her she couldn't do that due to the preparation of her teeth for veneers, now only full coverage crowns were an option. The patient believed she had no other choice and agreed to have porcelain crowns placed. Knowing how upset the patient was, the dentist adjusted his scheduled to prepare the teeth and place temporary crowns that same day. He explained the permanent crowns could not be delivered until after the wedding, but assured her the temporary crowns would look nice.

The patient did not return to have the permanent crowns cemented and sought the care of a new dentist. She filed

a professional liability lawsuit against the dentist for lack of informed consent and practicing below the standard of care.

In 2004, after a year of investigation, depositions and discovery, the patient's attorney proposed a settlement to the dentist. This amount represented the money that was already spent for the veneers, the cost to place the crowns, the cost to cover possible future root canal therapy, and the future replacement cost of the crowns. The patient was also seeking compensation for lost wages and stress. The dentist did not accept the offer, as he believed a refund for the cost of the veneers was all that was warranted. He felt strongly she was taking advantage of him. The case proceeded to trial.

Trial

The trial began in 2005. During the trial, the plaintiff's attorney argued the dentist never presented any other treatment options to improve the patient's smile. The attorney explained the duty to obtain informed consent and claimed the defendant breached that duty. He also defined informed consent as a dialogue between the dentist and patient, during which the dentist educates the patient about the diagnosis, nature of recommended treatment, alternative treatment options, and the possible risks and consequences of both. The dentist must give enough information for the patient to make an informed decision to accept or refuse the recommended treatment. The attorney reviewed the three areas of informed consent.

First is the nature of the recommended treatment and why the procedure is being recommended. Second are the risks, complications and benefits of the treatment. Third are the alternatives to the recommended treatment, including no treatment. The attorney made it clear to the jury that his client would not have consented to veneers had she known the treatment was irreversible. Additionally, she would have chosen treatment that did not damage her teeth, such as orthodontics or no treatment at all.

The defense attorney could not find experts to support the dentist's decision to offer veneers as the only treatment option to straighten and lighten the patient's teeth.

The attorney presented two orthodontist experts to discuss other possible treatment options. Both stated the patient was an ideal candidate for orthodontic treatment. Through the use of the patient's chart, they were able to show a history of periodontal probings with pockets of no more than 4 mm, good home care, and conscientious dental maintenance treatment. One of the orthodontists used a PowerPoint presentation to demonstrate the outcome that could have been accomplished using Invisalign. The full-screen presentation summarized the history of orthodontics up to the use of Invisalign for adult patients. The final slide, which was left on the screen for the remainder of the expert's testimony, showed before and possible after pictures of the patient's smile using Invisalign. When questioned, both orthodontists stated the patient's teeth could have been straightened by means other than veneers, which permanently damaged her teeth.

The patient's attorney also called a prosthodontist to testify about the dentist's preparation of the teeth for the veneers. He stated veneers frequently "pop-off" when the teeth have not been prepared properly. He further explained that if veneers are too long, the patient's bite could have been catching the incisal edge, and the excess force on the veneers could displace them. The prosthodontist used a study model to demonstrate the impact a bite can have on veneers when they are too long.

Finally, the attorney called the patient's new treating general dentist to testify. The dentist explained the facial surface of all the teeth had been overprepared and would likely require future endodontic treatment. The dentist used intraoral pictures of the teeth as well as radiographs to show how close to the pulp each tooth was prepared. He speculated that the previous treating dentist overprepared the teeth to align them with one another, giving the appearance of "straight" teeth.

The defense attorney called one expert orthodontist to testify that in 2003 Invisalign was not the standard of care used for orthodontic treatment on adult patients. He explained that adult patients would have undergone two years in full braces to straighten teeth and correct their bite.

The defense attorney could not find experts to support the dentist's decision to offer veneers as the only treatment option to straighten and lighten the patient's teeth. The defense attorney called the general dentist himself to defend his treatment plan.

When asked why he did not refer the patient to an orthodontist, he explained he had previously referred two of the patient's children to an orthodontist for treatment and believed the patient would contact the orthodontist herself had she wanted to pursue orthodontic treatment. He also explained the three-month time frame to straighten her teeth eliminated orthodontics as an option, leaving veneers as the best alternative.

When asked whether he told the patient the treatment was irreversible, he said he explained the procedure includ-

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ing preparing the teeth and assumed she understood it to be irreversible. He acknowledged he did not document the conversation in the chart but was certain of the conversation. He further explained that since she had been a patient for more than 10 years and they had such a good relationship, he did not document all conversations in the chart. He felt their relationship was strong, and if she had been upset or had questions, she would have let him know. He emphasized he wanted his patients to feel like they are part of his family and not just part of a "doctor-patient" relationship.

When questioned about his training in placement of veneers, the dentist stated he had attended courses on the placement of veneers for cosmetic cases. He had received certificates of completion from two highly recognized clinical educators. When questioned about the courses, he said they were mainly weekend courses but some had been four hours of intense instruction. He also testified he had completed 10 large veneer cases in the last three years.

The Verdict

The jury deliberated for several hours and returned with a 12-0 verdict in favor of the patient. The jury stated the testimony of the plaintiff's expert definitely played a role in the decision. While Invisalign may not have been the standard of care at that time, using orthodontics to straighten teeth was. The jury further believed the patient's time restraints should not have impacted the dentist's obligation to offer all treatment options. The jury also stated they did not believe his short period of training had prepared him for such an involved case. Nor did they think 10 cases qualified any dentist with limited training to undertake such a large veneer case.

General dentists who perform treatment that is primarily performed by specialists are held to the same standard of care of that specialty.

What lessons can we learn from reviewing this case?

■ Patients have a right to make an informed decision about their treatment. Informed consent is the process of giving patients the information they need to make decisions, including the diagnosis, nature and purpose of the proposed procedure, specific risks of the procedure, likelihood of success, alternatives to the procedure, and consequences of not performing the procedure. Informed consent is more than a signed form in the patient's file. It is a discussion between dentists and patients.

Document all informed consent discussions in patients' charts. Make notes about the patient's decision and any questions that were asked and the answers given. When using a form to facilitate the informed consent discussion, have another staff member witness the patient signing and dating the document. Be sure the witness also signs the document.

Dentistry now provides more options than ever to treat dental conditions. A dentist should be reasonably versed in the latest options as well as the traditional treatments. The prudent dentist has to advise patients of the ideal, as well as lesser treatment, and then if a patient declines ideal care and chooses a lesser treatment, the dentist should obtain and document informed refusal.

In this case, the jury told the attorneys that had the defendant advised the plaintiff of the options, and documented informed refusal, then they would have voted for the dentist. Indeed, the patient's attorney advised he would not have taken on the case if there was such documentation.

■ With the fast pace of advances in treatments and technology being made, dentists cannot afford to disregard continuing education. However, taking C.E. courses does not make a dentist competent at any new procedure. In this case, the dentist had taken several continuing education courses on veneers and cosmetic dentistry. His training, however, did not prepare him to undertake a veneer case as involved as this. Although he believed veneers were the best treatment option, he likely should have referred the patient to a specialist. General dentists who perform treatment that is primarily performed by specialists are held to the same standard of care of that specialty. Meaning, they are required to be able to fully recognize and diagnose difficult cases, and anticipate and effectively treat uncommon complications. The jury held the dentist to the standard of the prosthodontist, who was critical of his treatment.

■ Dentists are professionally and ethically responsible to present treatment options that are most appropriate for the patient's clinical need. It should have been a red flag to the dentist when the patient told him she wanted her teeth "fixed" in three months. Rather than taking the time to educate, he offered the only option that would meet her time frame. Dentists should present and discuss all treatment options that are within the standard of care, and document the patient's ultimate decision. When a patient is requesting treatment that is below the standard of care, consider withdrawing from further treatment. ■■■■

— ROBYN THOMASON
TDIC RISK MANAGEMENT ANALYST

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Practice Management Can Make a Difference

WILLIAM A. VAN DYK, DDS

GUEST EDITOR

William A. van Dyk, DDS, of San Pablo, Calif., has been practicing dentistry for 30 years. He is an associate professor at the University of the Pacific Arthur A. Dugoni School of Dentistry, Department of Practice Management, and lectures throughout the United States on management issues.

Every day in dental practice there is the opportunity for crisis. Major decisions need to be made on a continual basis. But there are certain times in the life of a dental practice when practice management help can make a difference in both the success of the practice and the enjoyment of the profession.

The first of these is in the formative years immediately after graduation. Practice management instructors in dental schools are like road line painters in Italy. They both are providing an excellent service, but nobody pays any attention to their work. With the tremendous amount of new and essential material about the actual practice of dentistry coming at students, it's very difficult for them to absorb material for later use after graduation. Still, when that day comes, business decisions need to be made and a successful future can depend on some astute choices.

The first article in this issue addresses some of those starting in practice important decisions in a very practical way.

The second article turns to considerations for the established practice. Once the private practice is well established and the team is in place and the patients are comfortable, the tendency is for the owner-dentist to start to fill his/her time with other activities that may cause him/her to lose focus. One of the most prevalent goes under the heading of "midlife crisis," but teenage children might be another, or even just the loss of interest in driving to the office day after day, week after week, and year after year. Instead of powering the practice to be all that it can be, the dentist finds the numbers starting to flatten or even shrink. The second article addresses ways for a practice in the doldrums or on autopilot to reinvigorate itself. From self-analysis to team building to image enhancement, a number of tools and interesting exercises will be provided to fire up a practice and lead to a whole new vitality in dental care.

The last, and perhaps the most important time in the life of a dental practice, is that period leading up to the inevitable transition to retirement. The variables at that time are numerous,

but the importance of planning and good decision-making cannot be understated. For some, the planning begins at age 45. For others, the serious decisions are made much later. But for every dentist, the more knowledge and understanding of the options, opportunities, and possible pitfalls, the better the chance they can make a smooth transition into retirement and, in the process, provide a viable business for a new dentist and continuing quality care for patients. The third article looks closely at what can be done to prepare for a smooth transition. ■■■■

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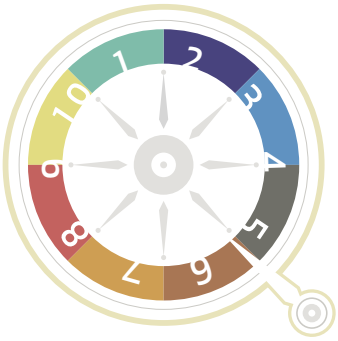

In the Beginning ...

WILLIAM A. VAN DYK, DDS

ABSTRACT Dentists have a number of important practice management decisions to make at the beginning of their careers. These are often made without a lot of training in the business side of dental practice. They include knowledge of what to say to get offered the right job and what to ask to choose the best position. New dentists need to look inward first and be proactive next to land the best position possible.

GUEST EDITOR

William A. van Dyk, DDS, of San Pablo, Calif., has been practicing dentistry for 30 years. He is an associate professor at the University of the Pacific Arthur A. Dugoni School of Dentistry, Department of Practice Management, and lectures throughout the United States on management issues.

As a lecturer on practice management to dental students for the last 21 years, I've come to accept the fact that it's impossible to get the majority of students to absorb the subject effectively. There is just too much immediate learning necessary to keep patients alive in the school dental clinic to worry about future issues when and if there is a graduation day.

After graduation, all of the practice management information glossed over during school becomes extremely important. The No. 1 complaint of recent graduates is: "Why didn't you teach us more about practice management?" The saddest part of this statement is that many new dentists make poor business choices of lifelong importance at this stage of their careers because they are not well versed in the value of good decisions.

Let's look at a few of the decisions that, if made correctly, can tremendously improve the quickness of success and the quality of practice throughout the life of the business.

First, every practice is different and every practitioner is peculiar in his/her own way.[1] As a new dentist, it's vitally important to make the decision to look inward to create a personal baseline upon which to build all the rest of the decisions about practice. A "vision" of what the dentist sees as their future practice, their lifestyle, the type of dentistry they want to perform, the patients they prefer to treat are all important beginning issues to clarify.

Questions a new dentist might ask are:

- Do I prefer to work alone or surrounded by colleagues?
- What aspects of dentistry fascinate me and which do I prefer to avoid?
- How good am I at managing other people?
- Am I a Mr. Fix-it or prefer the phone book to solve problems?
- How does family life/hobby/vacation play into my life plans?
- What are my basic income needs and short- and long-term plans based on my income?
- How do I define the standard of care that I choose to provide to my patients for the rest of my career?

The better the new dentist knows himself or herself and becomes comfortable with who he or she is and what is important to them, the better they'll be able to choose the right associateship, evaluate the pluses and minuses of practices to get close to, and purchase a practice that comes close to their ideal practice model.

Secondly, how a dentist decides what is the right associateship for him or her gives them the opportunity to expand their

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skills. Too often the new dentist looks at the associateship position as a nurturing one with an experienced, devoted, quality dentist while the senior dentist looks at an associate as an opportunity to play more golf. Too often the new dentist's decisions about where to practice are based more on the pressure of finding a "job," and the reality of paying back student loans, and the fear of losing out to other recent graduates than on the vision he or she has for a career. This rationale often results in a disappointing experience as an associate and frustration with the profession.

For a meaningful associateship, the new dentist needs to make the decision to slowly and methodically evaluate the opportunities available. If none seem suitable at the beginning, the new dentist needs to imitate the business community in general and open more doors.

When senior dental students at a Contra Costa Dental Society meeting asked new member Dr. Donna Gumber how she located a position of her choosing, she said, "I just went door to door." Many senior dentists know they should be thinking about an associate but they don't want to rock the boat or are good at procrastinating. If they get the chance to sit down with a positive and motivated new dentist, this can often move them to take the first step toward a possible transition.

When attempting to open some doors, the new dentist must first create an opportunity to meet practicing dentists. An effective tool involves writing a letter of introduction with a resume attached, which describes all the ways the new dentist can improve the existing practice. For dentists returning from the military or finishing a residency, the list can be extensive because issues like speed and the variety of treatments they are capable and confident of performing add immediate value. But new graduates also have things to offer:

- I can take calls 24/7.
- I love to treat children.
- I can perform crown lengthening.
- I'm proficient in a number of endodontic procedures.
- I am looking forward to learning from a master.
- I want to get out in the community and take advantage of my connections to attract more patients.

The list takes some imagination, but the important overall theme should be what the new dentist can offer the practice that will add value to the office and possibly gain a position. The letter should be finished with a promise that the office will receive a call from the potential associate to set up an interview with the dentist about opportunities in the area even if the dentist is currently not looking for an associate (they call it an informational interview in the business world) with the outside chance an interview will turn into the right job. (SEE SAMPLE LETTER.)

Working with the local dental society, send the letter and a resume to all the dentists in the chosen geographical location who are in the age bracket most likely to be considering bringing on an associate (20 to 30 years in practice). Try to keep the geographical location small enough to be able to meet with the dentists in the area.

If, as a result of the letter and phone calls, the new dentist gains the opportunity to interview with a potential employer, he or she needs to have a clear picture of what the practice needs to offer them. Based on a clear understanding of their needs, the new dentist must evaluate and answer questions like:[2]

- Is the patient mix suitable for improving my skills in a wide variety of treatments?
- Is the facility and equipment conducive to quality care?
- Is the staff professional and willing to work with me to guarantee quality care?
- Is reimbursement equivalent to comparable offices?[3]
- Is the senior dentist committed to improving and broadening my skills?
- Will the practice supply me with enough patients and motivate them to allow me to treat them?
- Will working in this practice add knowledge about patients and location to assist in purchasing a practice at a later date?

Obviously opening doors is an

A Sample Letter

Dear Dr. Jones,

I will be graduating this June from dental school and am very interested in finding an associate position in your area. I have a variety of skills that may be of value to the right practice. I'm very comfortable working with children. I have had special training in minor periodontal procedures like crown lengthening. I understand the importance of helping build a practice and would be eager to join organizations in the community to draw new patients into the practice. I enjoy emergency dentistry and would be pleased to carry the majority of after-hours emergencies. And as a new dentist, I would look forward to learning about all aspects of running a successful dental practice.

I'll be calling in the next few weeks and would appreciate the opportunity to meet with you even if you are not currently considering adding an associate. Your insight into the area would prove invaluable to me.

Sincerely,
Michael Lane
Senior Dental Student

important part of finding that first job, but taking a position in the right office is what will spell the difference between an opportunity to grow and improve as a dentist and a period of stagnation and frustration.

In dental schools accredited by the American Dental Association, the worst graduate is fully capable of providing quality care to patients. And each graduate knows the ethical standards by which they should treat their patients. They know to treat every patient as though they are receiving the treatment themselves. Why some choose not to is often a result of poor business choices made in the beginning of practice. A practice that is having trouble making ends meet offers the practitioner the temptation to cut corners or in other ways alter ethical standards to improve the bottom line.

By setting a good base of intelligent and thoughtful decisions at the beginning of a dental career, the new dentist can avoid ever having to face the temptation to give up the professional standards that brought him or her into the profession in the first place and can be proud of a lifetime of helping patients. ■■■■

TO REQUEST A PRINTED COPY OF THIS ARTICLE, PLEASE CONTACT William A. van Dyk, DDS, 2089 Vale Road, Suite 30, San Pablo, Calif., 94806.

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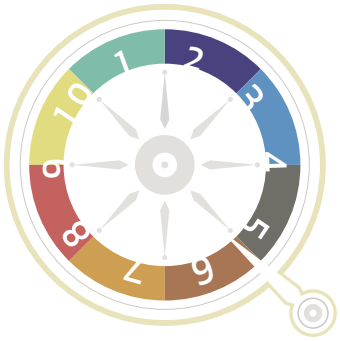

Feel Like Giving Up and Getting Out … From Beneath the Mid-career Squeeze?

SALLY MCKENZIE

ABSTRACT Mid-career provides different opportunities and challenges for different dentists. Some are hitting their stride and enjoying success. Others are facing financial worries and multiple concerns. While many of the issues that mid-career practices experience can be addressed effectively, doing so requires looking closely at those areas that tend to be the most troublesome, including patient retention, staff hiring and training, and patient satisfaction. If practices take measurable steps to address those areas, they make great strides in overcoming the mid-career slump.

AUTHOR

Sally McKenzie is a certified management consultant, a nationally known lecturer, and author. She is a consultant to the American Dental Association's Council on Dental Practice, and is chief executive officer of McKenzie Management, which has provided highly successful and proven management services to dentistry since 1980.

Mid-career, midlife, midterm. You've reached the middle, the halfway point. It can be a time of great prosperity and satisfaction, or one of significant anxiety. For some dentists, it means they are hitting their stride and are right in the middle of the excitement, the challenge, and the thrill of their chosen profession. They are on top of their game, enjoying the fruits of their labors, and looking forward to what the future holds. For others, mid-career feels more like being stuck in midstream, floundering somewhere in between the beginning and the end. It's too late to turn back, but there's not much promise in what lies ahead.

Behind them is the first 15 to 20 years of their dental career. They've invested a fortune in time and money in both dental and continuing education. They should be reaping the rewards, but they're not. They are burdened by the monetary pressures. The lean months are growing more frequent, and it feels as if the financial tightrope they are tiptoeing across could snap at any time. They are the leader of their team, yet the personnel struggles, the revolving door, the sheer challenge of just keeping a group of people together, let alone building a team, is wearing them down. Is it any wonder they find themselves asking, "Is this all there is?" Where's the excitement, the enthusiasm, the career satisfaction?

Consider your position on this mid-career path. Are you enjoying the view from the pinnacle of success? Or are you frozen in place, trapped somewhere between merely average and truly excellent? If you're stuck, are you willing to take the necessary steps to move your practice forward? Look at it this way, if the roof were leaking, you would have it repaired.

If your car weren't running properly, you would take it to the mechanic. It stands to reason that if the area of your life that has the greatest impact on your personal and professional happiness and satisfaction isn't delivering what you expect, you wouldn't hesitate to fix it. Right? The question then becomes where to start?

Look at those areas most likely to be sending your practice, and consequently you, into a midterm slump: patient retention, staff recruitment and hiring, lack of training, and poor customer service.

Patient Retention — The Deception of Perception

This is the common scenario in mid-career practices: everyone is busy. The schedule appears to be bursting at the seams. Hygiene is typically booked out six months. A couple thousand patient records are on file. Therefore, the doctor is convinced that patient retention is perfectly fine. However, "busy" is one of those great illusions of the dental practice, a perception that is not only deceiving but also costly. In fact, most dental teams are stunned to learn that 80 percent of dental practices are losing more patients than they are bringing in new (McKenzie Management client surveys 2003-2006). But upon hearing such statistics, the crew will simply turn and tell each other they must be in that select 20 percent group because, well, you know, they are crazy with work. Just how crazy? Find out. You don't know if you fall into the 80th percentile or the 20th percentile until you ask the questions and run the numbers.

How many inactive patient records are taking up space in your files or are stored away? Have you increased the number of hygiene days per week in the last year? Is your hygienist's salary more than 33 percent of what she/he produces? Finally, have you converted 85 percent of your emergency patients to comprehensive exams?

If the number of inactive records is enough to open a second practice, you have patient retention problems. If you have not increased hygiene days, you have patient retention concerns. If your hygienist's salary is more than a third of what they produce, and if you haven't converted 85 percent of your emergency patients to loyal patients, you have more patients leaving your practice than you have new patients coming in.

While misery loves company, it doesn't require that you hang around this pity party indefinitely. Practices facing a mid-career slump are experiencing undetected patient attrition that is very frequently the result of a weak recall system. It is the first system that a practice should examine when experiencing the mid-career pinch because offices that put recall to work, put patients in the chair, plain and simple. Follow the steps below.

First, generate a report from your computer of all patients past due for recall appointments in the last 12 months. Your objective is to reconnect with these patients using a defined strategy that will enable you to set goals and track the results of your efforts. Next, assign recall responsibilities to a member of the business team, these will include the following:

- Contact a certain number of past due patients each day. The coordinator should use a specific script as a guide in making the calls. In addition, she/he should check the patient records to identify a treatment concern noted in the patient's chart that she/he could reference in the phone call.
- Everyone needs goals, and beyond just making calls. The coordinator should be expected to schedule a specific number of appointments and follow-up with patients to ensure a specific number of patients complete treatment.
- The coordinator also assists the hygienist in meeting production objectives by scheduling the hygienist to achieve daily or monthly goals, as well as managing a specific number of unscheduled time units in the hygiene schedule per day.
- Finally, the patient coordinator monitors and reports on recall monthly at the staff meeting.

This process will reveal many patients who are more than willing to schedule an appointment. They do so because you've demonstrated to them you value this patient relationship and want them to return. Mid-career practices can jumpstart their patient rolls, just by making the effort to reconnect with them.

The Art and Science of Hiring

Hiring and personnel issues are a recurrent nightmare for many dental practices, particularly those in the throes of a mid-career slump. A seemingly perpetual string of employee headaches burdens these dentists. Based on a survey conducted by Dental Practice Report in 2002, 67.7 percent of doctors surveyed lost one to three staff in the past two years. On average, practices must hire and train new staff about every 18 months. While turnover is influenced by many factors, taking steps to ensure that the new hire has the potential to succeed in the position would be fundamental to curbing this perennial problem.

Typically, when that "two weeks notice" is delivered, panic sets in. Unfortunately, many practices don't have a recruitment or hiring strategy. Consequently, a pending vacancy sends the office into crisis mode. The focus is on filling the void as quickly as possible, regardless of the consequences. The result: dentists often hire the first person they can. They hope she/he is comfortable discussing

financial arrangements with patients, or managing a complicated practice schedule, or capable of quickly establishing rapport with others. But they don't really know, so they cross their fingers, rub their lucky rabbit's foot, and pray things work out.

No practice can leave hiring decisions to chance, least of all the struggling mid-career practice. Make certain your next hire is the right fit for your practice. Establish an ongoing employee recruitment program. First, you may not be hiring, but you should always be looking. When you experience exceptional service, give that person your business card and invite them to send a resume, which you will keep on file. Create a "Join Our Team" section on your Web site that tells prospective employees about what sets your practice apart.

Second, use your connections -- friends, colleagues, patients, local dental societies, vendors, and others whose opinions you respect; ask for employee referrals. Contact area business schools, hygiene programs, and assisting programs, and ask faculty to refer those candidates who best represent their programs.

Third, when you're ready to fill a position, don't hire until you test. Make use of computerized testing tools now available that enable you to assess if the individuals you are considering would actually be a good fit for the position and the team. In many cases, the doctor may be ready to hire a candidate who looks good on paper, interviews well, and appears to have the right demeanor for the practice. But if this person secretly hates asking people for money, she/he is not going to succeed as your collections coordinator. And you likely won't discover this until you're facing a financial problem, or she/he quits in frustration.

Internet tests specifically designed for dental practices enable the doctor to know within minutes if the candidate they are considering would be a good match for the position. It's a straightforward and accurate barometer that enables the doctor to hire based on real data, not gut feelings or good luck. The Institute of Personality and Ability Testing partnered with McKenzie Management in 2005 to identify peak performers in dentistry. The result of this study was an online testing tool developed exclusively for dentistry that strictly adheres to legal guidelines for pre-employment testing and helps dentists to more accurately match qualified candidates to dental practice positions. While other generic employment tests are on the market, this is the only one that is specific to the dental profession: http://www.mckenziemgmt.com/employeetesting.htm.

TOO OFTEN DENTISTS can't see past the fears to realize that training is a significant contributor to employee loyalty.

No Train, No Gain

Nothing will stampede over a struggling mid-career practice and pound it into further turmoil than lack of training. Training is not sharing bits and pieces of information among the staff, e.g., "Alison told Megan how to do a few things, then she passed some of that on to Jill who then told Hillary." That is NOT training.

The pet store down the street invests more time and energy training the minimum wage high school student how to sell fish than most dental practices spend training employees who are responsible for handling hundreds of thousands of dollars in practice revenues. Consequently, the single, biggest contributor to practice inefficiency, mismanagement, and lost revenues – all indicators of a struggling mid-career practice – is a poorly trained team. Ironically, the one who suffers most is the dentist. Still, many doctors are reluctant to invest in instruction.

What's the problem? Money. Dentists commonly believe they will plunk down a fortune in training costs then the employee will up and leave. Too often dentists can't see past the fears to realize that training is a significant contributor to employee loyalty and the investment should pay for itself in improved staff efficiency. Today, however, in this technology-driven new economy, a cost-effective solution is "cybertraining."

Dentists, like many other employers, can send their employees to school in cyberspace at www.dentalcareerdevelop.com, saving considerable time and reducing the cost of employee instruction some 70 percent to 80 percent. In roughly 30 minutes, a front desk employee can point and click through a tutorial on the causes and remedies of broken appointments. They can review a course on reducing accounts receivables. The hygienists can click their way through a lesson on patient tracking. Online courses like these and others, such as those offered through www.Docere.com, CareCredit, etc., enable staff, as well as the dentist, to receive much-needed training at their own pace without ever leaving the office and without gutting the bottom line.

Be Our Guest, Not Just Our Patient

In his book, "The Loyalty Effect" (Harvard Business School Press, 1996), Frederick F. Reichheld noted that 65 percent

to 85 percent of people who leave one business for another do so even though they are satisfied. What does that mean for dentists? Many of your patients stay with your practice only until they find a reason to leave. Most dental teams are often more than a little surprised by some of those reasons, such as: "The practice hours are not convenient." "There's no place to park." "The doctor hurts me." "I don't understand the bills." "They don't accept my insurance." "They changed a practice policy." "They don't answer the phone." "I can't leave a message." "They charged me for a missed appointment." "They are always trying to sell me something." "The fees are too high." "They can't keep staff." "They told me I have to go to a specialist." "They don't listen to me." "I never hear from them in between appointments." And the list goes on. What dental teams might consider to be insignificant issues or minor patient problems are costing mid-career practices a fortune in lost loyalty. Obviously, it doesn't take much to motivate patients to take their dental needs and wants elsewhere.

So how do you turn patients waiting for a reason to go somewhere else into long-term loyal partners? Take a close look at systems and service. A survey conducted by CustomerThink Corporation, an independent customer relationship management research and publishing firm, revealed that 70 percent of customers cite service as the No. 1 reason they defect. Patients are customers yet too often; employees view managing patient service as a distraction from what they consider to be more important tasks, such as ensuring the schedule is full, collecting from the insurance companies, confirming appointments, etc. Ironically, the success of each of these goes hand in hand with providing excellent service.

First, find out what your patients think. Survey patients to assess if seemingly minor concerns raised by a few patients are a bigger problem than you may have realized. Invest in a statistically valid survey instrument that is designed to ask questions that will elicit the most valuable and revealing information: www.doctordemographics.com.

Next, engage in "action listening," which is different from active listening. With action listening, the dental team commits to bring concerns and issues voiced by patients to the staff meetings for discussion and action. For example, if patients are commenting the practice hours are inconvenient, the team develops a plan to address the issue, such as adjusting the practice hours for 60 days, marketing the change, and monitoring patient reaction and subsequent patient retention. The team can then assess if the change should be made permanent.

Look at practice systems and evaluate if they are best serving the patients thereby best serving the practice. If the schedule is booked out weeks for the doctor and months for hygiene, if patients are routinely declining treatment, if collections are low and holes in the schedule are frequent, these are all system indicators that patient service is deficient.

It's also a good idea to pay attention to the obvious:

- Welcome each "guest." Treat each patient as the most important person in your office from the moment she/he walks in the door until they leave the parking lot.
- Have the answers. Patients expect immediate answers to basic questions.

Track the common questions patients ask. Take steps to ensure every member of the team is prepared to answer them.

- No pretending. Under no circumstances should a patient be ignored when they come to the counter. Regardless of what dental team members are doing at the time, acknowledge the patient's presence immediately. It takes five seconds to look over at the patient and let them know you will be right with them. If one pretends they are not there, that is like telling the patient they are an annoyance and unworthy of the dental team's time.

Providing excellent service means building a strong emotional connection with the patient — not just running on time and delivering good dentistry. It means every member of the team makes it clear they care about that specific patient, is willing to listen to them, and shows genuine interest and concern for them.

Conclusion

In conclusion, every mid-career practice has room to grow and improve. But wanting to grow and wanting to improve are not enough. You have to be willing to take action, to measure the effectiveness of your patient retention and take steps to address shortfalls if necessary. You have to look closely at the quality of your team and at the options available, both in hiring and training, to enhance their abilities. You have to be willing to explore well beyond the superficial indicators of patient service to determine if your practice is delivering the product and services that not only ensure satisfaction but also loyalty. And, finally, you must continue to measure and refine every practice system that will enable you to achieve your individual and practice goals and dreams. Only you can decide to take the mid-career slump and turn it into a mid-career stride, but the resources are readily available to help you do so. ■■■■

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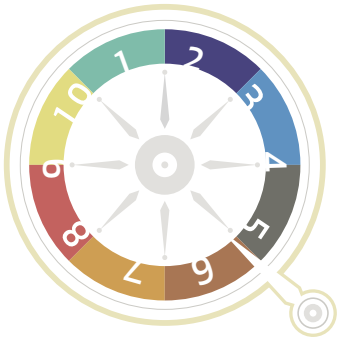

Smart Approach to Practice Transition: Options and Strategies

RANDALL K. BERNING, JD, LLM

ABSTRACT This material discusses contemporary approaches to practice transition for practice owners. Although this discussion is not intended to be comprehensive, it is intended to provide a good overview in the form of a structured outline of selected areas an owner should think about and undertake to implement, as appropriate, to their practice and their goals.

AUTHOR

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Being deliberate in taking the steps toward planning the end-stage of your practice career is one of the hallmarks of crafting a successful practice transition. A successful transition should take account of the needs of the practice owner, the practice, and a new doctor(s) coming into the practice. At least three directions are available to the practice owner considering an exit from practice, planning for the growth-oriented practice, maintaining a practice status quo, and preparing for an immediate sale with a possible hire back of the seller. Each of these directions is commented on here and universal inquiries are addressed, such as how to arrive at practice value, securing advisers, and timing issues.

What point are you at now, Doctor?

The following sequence of inquiries has been developed over the author's 26 years of structuring practice futures. It has proven helpful in beginning the development of a transition foundation.

Inquiry: Are you in a growth-oriented practice?

■ *Considerations:* If you are in a growth-oriented practice, that is one that is growing significantly on a year-to-year basis, in the author's view, at least 10 percent to 12 percent a year, including an annual fee increase, for at least three consecutive years, then specific considerations should be examined. The considerations include the current size of the practice, whether there is more than one doctor presently at the practice, and the surrounding demographics.

Given an analysis of prospective future growth, it can be appropriate if not imperative to plan for a longer-term group practice. Today, longer-term group practice formats built on the foundation of a successful established practice, can 1) provide significant financial return for the practice founder(s); 2) provide for a tailored role for the interests of the founder(s)

to decrease days, pick procedures or patients; and 3) provide the option of the founder continuing clinical care or migrating into a management role.[1]

OPPORTUNITIES: For the growth-oriented practice, there is significant latitude to structure a true succession. A true succession means, in part, a planned transfer over time of the managing doctor role from one equity owner to another equity interest doctor(s) who will build further on the group practice foundation. Important contemporary considerations include matching facilities, staff, and the number of doctors with the market patient drawing area. Doing so allows for a carefully calibrated match between the size of the practice and number of the doctors. The founder(s) of such a practice can use the planning process relating to the practice and the drawing area demographics to plan for adding the appropriate number of doctors, types of doctor care providers, and blend their own role(s) into the structuring process.

PITFALLS: Growth-oriented practices must allow sufficient time to plan for the future of the practice. The aspect of planning and execution based on practice development plans is not widely used in dentistry. However, without consistent practice planning and periodic review, the result may be an incomplete execution of the underlying plans and frustration by the founding doctor(s). Further, in an evolving group practice, unless careful consensus building is used to ensure that all doctors, all key staff, and all key advisers to the implementation are aware of the goals and design of the practice, communication difficulties are likely to occur.

Inquiry: Are you in a practice and desire to keep the status quo?

■ *Considerations:* In contrast to planning for the growth-oriented practice is planning for the practice as a status quo entity. If you are not interested in developing a group with a longer-term future, but you do desire to continue practicing for the next three to seven years, and also desire to cut your time in practice, it is beneficial to plan using the following three steps.

First, analyze your practice current and projected patient flow and patient allocation. Determine if the patient flow will support either two full-time doctors ("full-time" as defined by the practice or doctors) or support one or more of the following combinations: one full-time and one part-time or one part-time doctor growing to full-time as the other doctor (the current practice owner) reduces from full- to part-time and exit. Generally, the doctors' choice from the above and the practice numbers for patients and procedures, and production and collections tell the story as to which format is likely to meet the needs of the practice.

Second, determine compensation for both doctors. In the author's view, it must be matched to the practice performance to date and not based on projections. To match the practice performance to date, use the real numbers of the most recent year of the practice to evaluate the transfer combination validity.

Third, if it is less than three years to a planned change in status or an exit, consider setting the practice for an immediate sale or short associateship and sale or hire back starting 18 months from the target date.

■ *Further consideration:* If you are interested in not developing an associateship arrangement or in having a partner, a true solo group may be appropriate. This is not a rental arrangement but the purchase of a right to use the facilities of the practice owner for a period of years with appropriate practice and legal safeguards for each party.

OPPORTUNITIES: The status quo-oriented practice has the benefit of providing a very comfortable exit. This will often be the case since the facility is not likely to change, staff for the most part will remain, and the period of years the current owner will remain can be set so long as the patient flow is sufficient.

PITFALLS: To have a viable transfer at the chosen in time, the status quo-oriented practice must at least maintain the historical production/collection ratio and seek to maintain the expense profile of the practice. To do otherwise is to not build on the strength of an existing practice, namely having predictable practice financials for production, collections, expenses, and hence net available for compensation and debt payment for a prospective purchaser.

Inquiry: Are you in a practice and desire to plan for an immediate sale?

■ *Consideration:* Many owners feel that the least complicated approach to leaving a practice is to sell a practice and perhaps have an employment hire back period. This is in fact, not generally a complicated matter. Two approaches among others are readily available. First, a doctor can choose to list the practice in the *Journal of*

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the California Dental Association or other journals, and Web sites for sale, have the practice valued, and have their accountant and attorney prepare appropriate reports and the purchase and sale documents. Second, the doctor can choose to have another party, generally a broker, list the practice, place a price on it, and then have the doctor's accountant and attorney prepare appropriate reports and documents.[2] The opportunity presented by an immediate sale is to terminate your involvement with a practice on the transfer date with no long pre- or post-practice involvement, and no further legal attachment. However, it must be recognized with an immediate sale there is no opportunity to leverage the sale with the sale of incremental equity interests, no after sale employment income, and no chance to mentor a new practitioner.

Inquiry: Do you understand how to arrive at practice value?

The author wrote the following for a specialty journal hitting on this issue, and thought it would be appropriate to share it here since it has been well received.

"Thankfully, in contrast to 25 years ago when I started in the area of practice transfer, there are now good resources to guide both the buyers and sellers to first understand the theory of professional practice valuation and then how to apply it to get to value. In the case of dentists, the ADA has published *Valuing a Practice, A Guide for Dentists*. The publication discusses valuation approaches and details earnings based methods with an example of the capitalized earnings method. The reason, in part, which owners need to be particularly cognizant of is that with net determined and used to arrive at value, a buyer can identify how much out of the net they can pay for practice purchase debt and project how much they will have to live on.

Consequently, today buyers and their advisers are very interested in pinning down net and using an earnings method to arrive at value. For sellers to apply any other method for arriving at value, in the author's view, simply begs the question of how can the buyer pay for debt and live, which will have to be answered sooner or later, and ultimately some form of net analysis will be used anyway in one form or another to arrive at value. In short, it is the author's counsel to sellers that it is much easier and more direct to simply go for a professional earnings-based valuation at the start and be done with it. At the same time that sellers grapple with how to arrive at value, they need to bear in mind that value is not price. Value can be arrived at using a valuation methodology or a group of comparables, but price is what is negotiated when the value is known and usually takes into account the tax planning of the parties."[3]

BOTH PRACTICE OWNERS and buyers or prospective partners owe it to themselves to gain an understanding of value and its application to dental practices.

PITFALLS: The author always says that both practice owners and buyers or prospective partners owe it to themselves to gain an understanding of value and its application to dental practices. Not putting forth the effort to read and apply readily available contemporary dental practice valuation information means the doctors are likely to not be fully cognizant of the financial implications of one of the largest financial transactions they will undertake during their career. If the doctors rely only on others, whether valuation firms or brokers, there can be later misgivings if they don't at least have their own working knowledge of the importance of valuation methodology and the detail necessary to examine a practice.[4]

Inquiry: Are you conversant with approaches to treat equitably a prospective associate/partner?

■ *Consideration:* The practice owner's goal should be to establish a trusting relationship between the doctors with equitable treatment of a prospective associate or partner right from the beginning. Owners should be prepared to discuss the practice opportunity without ambiguity. Owners should be able to answer the following questions, for example: How long will the associate period be? What compensation method will be used for the associateship? When will a buy-in opportunity be offered? What valuation methodology will be used? If a partnership or buy-out, when will a confidentiality agreement be available and then, when will the review of financial and tax records occur? When will an employment agreement or equity interest or purchase and sale agreement be prepared and available for review? The questions are not very difficult in and of themselves, but it does take being organized and straightforward as the practice owner with any prospective associate, partner or buyer.[5]

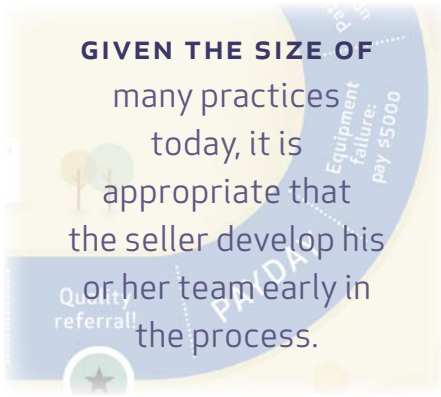
PITFALLS: The younger professionals today have access to far more practice associateship and transition information than in years past. Far too often, sellers or doctors offering a partnership interest are not prepared for the important and understandable questions to be asked by any potential buyer or associate leading to partner. The lack of prepara-

tion including particularly not having a sequence of items, from discussions to disclosure of practice information to valuation to document drafts, for a prospect can sow seeds of confusion and distrust where there need be none.

Inquiry: Have you thought through at this practice stage a "life plan" that lays out the importance of your practice to achieving any financial and retirement goals, personal satisfaction and family goals?

■ *Consideration*: With years of practice behind you and a routine established it can often be difficult to imagine the shape and form of life with less time or no time at the practice. But using your current professional advisers or a practice transition expert can help add an objective view to sizing up the future and actually preparing a detailed plan can add a welcome sense of relief and assurance for the doctor. In part focusing on the ideal practice for the senior doctor in both working days and times can be invigorating, especially when placed within the context of either the growth-oriented practice or the status quo practice. This can be the time to set performance objectives for the practice and finalize, if not already in place, the doctor's estate planning.

PITFALLS: One vivid recollection the author has is of a well-known doctor, active in his community and organized dentistry, who having sold his practice expected to focus on hobbies. However, these were never as satisfying as his practice and he ended up hanging around the practice and buyer for years. How different the result can be to plan for a role if that is desired where the seller or senior partner has continuing duties or responsibilities or, on the personal side, to plan for life's time and investigate where a life of hobbies or constant travel as a full-time avocation can be too much of a good thing. In addition to examining a role with the practice, consider the rich rewards of volunteering. This option has been carefully discussed in a book, *Giving From Your Heart: A Guide to Volunteering*, by a well-known and now retired California endodontist, Dr. Bob Rosenberg with his co-author Guy Lampard.[6]



Inquiry: Have you developed your list of professional advisers?

■ *Consideration*: Since the practice owner has the practice and will take the initiative to offer the associateship, partnership or sale opportunity, the seller should be prepared. Given the size of many practices today, it is appropriate that the seller develop his or her team early in the process.

Generally the team should include the practice accountant, legal counsel, valuation firm, and as desired a transition consultant or brokerage listing firm. Depending on the complexity of the transaction and variety of assets, practice, lab, real estate, existing or planned trusts, then, as appropriate, estate planning counsel or tax specialists should be consulted. Routinely the author suggests that doctors use either business/tax counsel or health care attorneys to prepare the transaction documents. This is appropriate for both parties but the roles are different.

It is the practice owner, in the author's view, who should initiate all document drafts, and the younger professional as the employee, partner, or buyer who should review the drafts prepared. The author is aware that some buyer's advisers like to prepare the purchase and sale documents, and that is certainly discretionary. Further, a critical assessment and instruction must, in the author's view, be given to all professionals involved. If the parties are committed to having the transaction proceed, then it is important not to allow the advisers to become potential deal breakers.

The orientation, in the author's view, to all advisers is making the deal and accommodating the other side to the degree possible to arrive at that end.[7]

PITFALLS: Not having advisers in place can waste valuable time of both doctors. Not having advisers with solid credentials can mean the doctor(s) are placing their future in the hands of potentially inexperienced advisers. Further, not having deal maker-oriented advisers means the potential loss of the transaction over the adviser's obstreperousness and not the actual benefit to the parties.

Considerations Related To Timing

Timing, as an old saying goes, is everything. This is particularly true for professionals. Much time and energy has been spent by any dentist, attorney, or physician in securing their professional education and setting up their practice situation.

Inquiry: When should an owner initiate the associateship leading to a potential partnership and buy-out or sale?

There is much to be said for setting in motion a practice owner's exit strategy well before health or energy fades or fails. Although it is routine to see doctors these

days practicing longer than when the author started in the transition area, in general, the best time frame still seems to be planning for early to mid-60s with buy-out of a partnership or after a sale hire back to tack on one to three more years as the parties may negotiate. For growth-oriented practices with younger practice owners, contemporary planning and adding of partners is occurring in the 40s. Of course, in general, some doctors plan for an earlier transition and some far later, but the timing noted here is what is reflected in the author's practice. For specialty practices today, the author routinely suggests two to three years prior to an exit as a minimum, and for general practices depending on the geographic area, one to three years. In many cases, it is not the timing that should actually control. Rather, it is when the right candidate presents him or herself and the fit for a practice future or transition is well accepted by both doctors. Most practices today have the elasticity and growth potential to move forward years earlier than is generally thought possible, and the right fit of the doctors can be worth gold in meeting both parties needs and having a comfortable practice relationship.

Inquiry: When to value?

Frankly, short answers are readily available today to the question of when to value a practice. In the case of the associateship likely to proceed to the purchase of all or a part of a practice, it can be helpful to have a practice valuation before or within a reasonable time, usually four to six months, from the start of the associateship. In the case of the purchase of a solo group member under a buy-sell agreement, or in the event a practice owner dies, is permanently disabled, or withdraws, it can be advantageous to have a periodic valuation or at the least specify the methodology to be used to arrive at value. For life planning and prospective anticipation of retirement needs it can be very useful to have a practice valuation prepared, if not a complete professional work product, at least a value estimate using the suggested steps for the capitalized earnings method in the ADA's *Valuing a Practice: A Guide for Dentists* publication.[4]

Inquiry: How long for the associateship?

More the exception than the rule today is the long-term undefined associateship. Years ago it was common to have multiple year associateships. Today, owners of growing practices should be looking for the commitment to the practice that follows from an equity interest purchase. Practice owners looking to sell their practice should be prepared to move from any associateship to the sale with a potential hire back in relatively short order to meet both parties' expectations for the anticipated close. Note that in today's rapid-fire sale context there may be no associateship period before the sale and depending on the size of the practice, no hire back.

Conclusion

Exiting from practice comes for all dental practice owners. Today, a good suggestion is to ideally start planning for a personalized and well-thought out approach to practice exit earlier than was the case in years past. For the growth-oriented practice owner, the process for developing sophisticated succession plans can be involved and early attention is beneficial to achieving a coordinated approach.

This discussion has presented a group of inquiries and perspectives relating to practice transition. Thinking through the inquiries will allow any owner to begin to develop a planned practice transition that is both rewarding and comfortable. ■■■■

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A History of Arsenic in Dentistry

JOHN M. HYSON, JR., DDS, MS, MA

ABSTRACT The history of the use of arsenic in dentistry has been relegated to dental history. Once hailed as a panacea for the relief of pain and the answer to root canal therapy, it soon fell out of use mainly because of its misuse by unskilled and unscrupulous dentists in search of a quick fix to a complex problem. Such is the story of arsenic.

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Chapin A. Harris in 1849 defined arsenic as "The name of a metal of a blackish or steel-gray color. It is found native in a state of oxyd, and also combined with sulfur, under the improper name of yellow and red arsenic. Arsenic and its various preparations are the most active of all the poisons."[1] Arsenic itself is never used in medicine, but is used in the form of "arsenous acid or the arsenates of sodium, potassium or copper." It is manufactured in Germany and England where it is a collateral product during the smelting of cobalt ores.[2] Harris added that arsenous acid was "a powerful agent that has been extensively employed, both in America and Europe, during the last few years, for destroying the pulps of teeth, but on consequence of the great liability of a tooth, after the destruction of its lining membrane, to give rise to inflammation of the alveolodental membrane, and abscess, the practice is rapidly falling into disrepute."[3]

Arsenic is a poison and the symptoms of arsenic poisoning are "a violent, burning pain in the stomach and bowels, retching, vomiting; the matter thrown up being of a greenish or yellowish color, sometimes streaked with blood, thirst, hoarseness, difficulty of speech, diarrhea, convulsions, the eyes are red and sparkling, delirium and death."[4]

History of First Use: 2700 B.C.

The Chinese medical work titled *Nuci-King* written in 2700 B.C. describes the use of a pellet of arsenic placed in the cavity of a painful tooth to kill a tooth worm. Johannes Mesue, an Arabian, used a mixture of yellow arsenic to coat the roots of teeth to be extracted. Gerber (Abou-Moussah-Dschafer-al-Sofli), called the father of chemistry, mentioned arsenous acid in his 8th century writings. Paracelsus reportedly used it as a medicine. In about 1400, Petrus de Larglata treated dental fistulas with caustics and arsenic.[5] Haly Abbas (d. 994) in his medical book, *LiberRegius*, translated from Arabic into Latin in 1492, advocated using arsenic to devitalize the pulps of teeth. He also recommended arsenic and opium for toothache.[6] Arculanus described filling teeth with gold and recommended arsenic as an obtundent. In 1641, John S. Schroeder published his *Pharmacopocia Medico-Chymica*, which described how to obtain arsenic; and in 1733, George Brandt, a Swedish chemist, first introduced its chemical properties when physicians began to use

it. Reportedly, Dr. Alexander Wood of Edinburgh advocated the use of arsenic to destroy dental pulps as early as 1833.[7]

In North America, Dr. John Roach Spooner (**FIGURE 1**) of Montreal, Canada, is generally given credit as the first to use sulfide of arsenic to devitalize the dental pulp; however, the discovery was not made known to the dental profession until 1836 when his brother, Dr. Shearjashub Spooner, published his treatise, *Guide to Sound Teeth*.[8] Chapin A. Harris apparently also used arsenic in 1835 without having any knowledge of the "Spooner discovery."[9] In 1838, Harvey Burdell in his book, *Observations and Diseases of the Teeth,* condemned arsenic as a "very dangerous treatment resorted to by a few New York dentists, which consists in applying arsenic or rat's bane, to the excited nerve ... It was supposed, when the Crawcours left this country, that valuable discoveries of this kind were at an end."[10] In 1842, Solyman Brown extolled its use as the "most prompt, safe, and effectual, when properly applied" to destroy the nerves of "decayed and painful teeth." However, Dr. Burdell condemned its use as "cruel, ineffectual and dangerous."[11]

Ide cautioned the profession on using arsenic in 1842 because of the "excruciating" pain it sometimes evoked in molar teeth. He recommended using arsenic mixed with morphine or creosote. Sensitivity and discoloration from a purple to a dark brown, which "permanently destroys the beauty of the tooth," were other problems.[12] The safety of using arsenic improved somewhat after the availability of gutta-percha in 1847 to seal the cavity. Without this restorative material, the arsenic could leak out and cause "sloughing of the gingival, destruction of the adjacent periodontal ligament, with extrusion of the tooth and attendant severe pain."[13]

The Tragic Case of Dr. John Stoughton Wolcott: 1843

In 1843, the death of Dr. John Stoughton Wolcott, the son of Oliver Wolcott, the Connecticut governor and grandson of one of the signers of the Declaration of Independence, "by the application of arsenic to the nerve of a tooth" was reported in the newspapers and periodicals.[14] As the story goes, Dr. Wolcott, suffering from "a severe toothache" on Sunday, Nov. 19, 1843, visited his dentist, M.B. Merriman of Litchfield, who proceeded to place a powdered preparation (one-twelfth of a grain) of two parts of arsenic and one of morphine, moistened with creosote, in a carious lesion of the mandibular right second bicuspid tooth. The mixture was covered with wax. Still receiving no relief, he returned to the dentist that evening and had the tooth extracted. According to Wolcott's physician, R.M. Woodruff, on Monday morning, Wolcott's face was swollen. That afternoon, he vomited two or three times, was very thirsty, and was unable to micturate. In the evening, his inferior right jaw was more swollen with severe pain, he had "constriction of the throat, difficulty swallowing, and labored respirations, pulse 130, lips parched, great thirst, chilly, a sensation of stiffness of the whole body, and debility." He told Woodruff, "I have had arsenic in my tooth and am poisoned."[15]

By Tuesday, the swelling had increased, "from behind the mastoid process on each side, far up on the temporal and frontal bones, and around his neck, filling it out to the chin and about the face so as to almost close his eyes," respirations were much more laborious, lips were "greatly distended, parched and livid, vomiting almost incessant, thirst unquenchable, pulse irregular, distress at stomach great, and copious secretions in the throat." On Wednesday morning the patient died.[16]

FIGURE 1. John Roach Spooner, oil portrait by Rembrandt Peale *(courtesy of the Dr. Samuel D. Harris National Museum of Dentistry).*

Dr. Merriman requested an autopsy, but it was not performed. Dr. J.G. Beckwith of Litchfield thought that Wolcott did not exhibit the "legitimate effects of arsenic upon the system" and that arsenic had been "unjustly charged with the death." He said that the small amount of arsenic given to Wolcott was a safe dose, even if ingested into the stomach.[17] Dr. Beckworth's diagnosis was "erysipelatous inflammation of the neck and face," independent of any "influence arising from the action of arsenic."[18] This diagnosis would be in keeping with the modern concept of Ludwig's Angina.[19] Unfortunately, both arsenic and the dentist were blamed for Dr. Wolcott's death.

Controversy in 1844

Even in 1844, there was controversy over the value of arsenic in pulp destruction. Hudson S. Burr, MD, used a small pledget of cotton dipped in creosote and then into "arsenic and ascetate of morphia," inserted it into the cavity, and covered it with beeswax and gum mastic melted together. He never allowed it to remain more than 24 hours.[20] On the other hand, Edward Taylor, MD, regarded arsenic as an "unsafe remedy" when the destruction of the pulp was desired, and

had discarded its use altogether, except in certain cases. He thought the vascularity of the tooth carried the drug into the general circulation.[21] Dr. Chapin A. Harris at the Baltimore College of Dental Surgery agreed with Dr. Taylor that arsenic was attended with danger and sometimes resulted in the loss of the tooth being treated. He thought its employment should be "at once and forever be abandoned." However, he feared that as long as dentists continued to "advertise to cure the toothache in two or five minutes" and it was profitable, it would be continued to be used.[22] In 1845, Dr. Amos Westcott of Syracuse, New York, in a lengthy article in the *American Journal of Dental Science* also condemned arsenic by saying that "it would have been far better for the community and the profession, had not this remedy been discovered." He believed the nerves of the teeth or their accompanying blood vessels capable of absorbing arsenic, thus, it was dangerous to the general system.[23]

In August 1848, the subject of arsenic was hotly debated at the ninth annual meeting of the American Society of Dental Surgeons in Saratoga, New York. Dr. Westcott somewhat modified his earlier stance because of his contact with Dr. Edward Maynard of Washington, D.C.; Westcott had now used it in many successful cases. Still, he believed it better to destroy the nerve with an instrument. Many of his arsenic cases had gone on to alveolar abscesses.[24] Dr. Chapin A. Harris stated that he had experimented with arsenic in about 300 cases in 1842-43 and found that three out of four cases resulted in alveolar abscess in three months to two years. After hearing of Maynard's good results, he tried it again on about 20 teeth with more success than he anticipated; however, he rarely left the arsenic in the teeth more than seven hours.[25]

In 1859, another death was attributed to the use of arsenic during dental treatment. The New York Herald reported that Lt. Sanford of the U.S. Revenue Cutter, Harriet Lane, lost his life from the "effects of arsenic applied to a tooth." Dr. Chapin A. Harris said that if this were true, the arsenic must have been very carelessly applied and in a dose much stronger than that required to kill the pulp. A 40th- or 50th- of a grain was sufficient to destroy the nerve.[26]

IN AUGUST 1848, the subject of arsenic was hotly debated at the ninth annual meeting of the American Society of Dental Surgeons in Saratoga, New York.

Sensitive Dentin: 1859

Arsenic was also used during this period to treat sensitive dentin. It was placed in the cavity of sensitive teeth and allowed to remain 24 hours; the decay was then painlessly removed.[27] Sir John Tomes in his *A System of Dental Surgery* recommended arsenic to render the pulp "insensible to pain" in the removal of decay. However, he cautioned that the action of arsenic was not "always limited to the surface of the dentine." It would find its way to the pulp and cause "death of that organ," a condition which was soon followed by "discoloration of the whole crown of the tooth, and very frequently by the supervention of alveolar abscess."[28] Arsenic was also used for partial destruction of the pulp. In 1882, Walter W. Allport of Chicago stated that in some cases "a portion of the pulp would slough off and the balance of the pulp would take on a healthy action and live for years."[29]

The Technique: 1860s

In Dr. J. Foster Flagg's technique in the 1860s, the amount of arsenic usually employed in pulp devitalization was about 1/25 of a grain of arsenic, mixed with the same weight of "acetate of morphia and made into a thick paste with creosote." Creosote seemed to be the ingredient which "modified the amount of pain." The cavity was covered by a plug of cotton "moistened with a thin solution of gum sandarac" with a wax filling, and allowed to remain 10 days or two weeks.[30] In 1863, Dr. A.C. Hywes upbraided the profession for the unwarranted "wholesale extraction of teeth," which could have been saved by "eradicating the diseased part." He considered it malpractice when root canal therapy could have saved 95 percent of all teeth thus sacrificed. In all cases of exposed dental pulps, he applied "a minute portion of arsenic, combined with creosote" coved by a "plug of cotton moistened with a solution of gum sandarac." Such teeth could be rendered as "sound and serviceable as when in their normal condition."[31]

Apparently, there was still some debate in the profession over the merits of adding morphine to the arsenic to allay the pain. Drs. Robert Arthur and Chapin A. Harris felt it diminished the pain of the application of arsenic, whereas Drs. Jonathan Taft and John Tomes thought it produced pain, and should be deleted from the formula for pulp destruction.[32] Dr. F.A. Brewer reported two cases of destruction of the alveolar process by the indiscriminate administration of arsenic during the devitalization of the dental pulp. In one case, the arsenic came in contact with the gums and alveolar process, destroyed the incisive and canine fossa, and resulted in the loss of the tooth under treatment, a sound canine, and first bicuspid on the same side.[33]

Another Death: 1879

In 1879, another death was attributed to arsenical poisoning. On Oct. 6, *The New York Times* reported that George A. Gardner of Brooklyn had died Sept. 27 "in great agony, after 10 weeks of indescribable suffering." According to the *Times*, his attending physician, Dr. Samuel S. Guy, said his death was caused "by arsenical poison, placed by a dentist in one of his teeth for the purpose of killing an aching nerve." However, Guy's certificate of death stated that the cause of death was "gangrene of the mouth and face, arising from treatment of a tooth."

Prior to his death, Gardner had been treated by two dentists, Dr. Waters of Boston and Dr. Marvin of Brooklyn, neither one of whom used arsenic in his tooth. Waters had used carbolic acid and Marvin creosote. The *Times* reporter was the first to agitate the subject of arsenic several days after the interment. It was only after being interviewed by the reporter that Dr. Guy said that arsenic caused the death. Dr. Wyckoff of the Brooklyn Health Department said he had never known of a case in which "death was directly and exclusively due to arsenical poisoning." Furthermore, none of the classical symptoms of arsenical poisoning were reported by Dr. Guy in his death certificate. Careless reporting was apparently responsible for this whole affair which was intended to embarrass and cast a "black eye" on the dental profession.[34]

The Technique: 1895

In the mid 1890s, cocaine hydrochlorate anesthesia began to replace arsenic as the drug of choice for pulp extirpation. Cocaine was also combined in a formula with arsenic and lanolin as a paste to kill the nerve.[35] The disadvantages of arsenic were that it caused pain, usually required more than one application, and there was the danger of leakage in class 5 gum line cavities. Cocaine, on the other hand, was effective in a single sitting and the pulp removed without pain.[36] From 1897 on, the technique also changed to using arsenic in the form of a fiber. The fiber was made by "impregnating cotton wool with arsenic oxide, 50 percent, and other drugs such as creosote, morphine acetate, oils of cassia and wintergreen and cocaine, 2 percent." A very small section of fiber was sufficient for the purpose.[37] By 1903, the technique had changed but little. Dr. Frederick I. Bartlett of Washington, D.C., offered the "golden rule" to never repeat an arsenical application and never leave it the tooth more than 48 hours.[38]

CARELESS REPORTING was apparently responsible for this whole affair which was intended to embarrass and cast a "black eye" on the dental profession.

Arsenic in Modern Times: 1928-90s

In the 1920s, arsenic was still being used by some dentists to treat teeth with narrow and curved canals or for patients with severe systemic disease or allergy to local anesthetics. Used with the proper precautions, arsenic was an effective drug; however, problems persisted. Messenger reported a 1928 case where an arsenical paste used in the devitalization of the pulp of a maxillary cuspid tooth, which ultimately resulted in the loss of all the maxillary incisor teeth and a first molar because of necrosis superimposed by a streptococcal infection.[39] In 1937, Curnock of England reported a case of arsenical poisoning with "abdominal pain, vomiting and diarrhea, the classical symptoms of acute arsenical poisoning."[40] Glasser reported the case of a 50-year-old female where arsenical paste was inadvertently forced into the apical end of the canal of a maxillary premolar, which resulted in hospitalization of the patient and extraction of the tooth.[41]

In 1985, Yakata et al. and Azumi reported a case in which treatment of a mandibular second molar resulted in extensive osteolysis of the mandible. Following arsenic treatment, the patient developed paresthesia of the lower lip, pain, trismus, swelling, and extensive resorption of the ascending and horizontal rami of the mandible.[42] In 1991, Smart and Barnes reported a case where a cobalt preparation containing arsenic was used to treat a maxillary first molar, which resulted in necrosis of the bone and loss of the tooth.[43] In 1997, Bataineh, Al-Omari, and Owais of Jordan reported two cases of bony necrosis followed by sequestration and in one case pathological fracture of the mandible.[44]

Conclusion

The majority of the dental profession would agree that there is no longer any "indication or need to utilize arsenic in dental practice today," and that "unjustified use must be condemned and should be prohibited."[45] ■■■■

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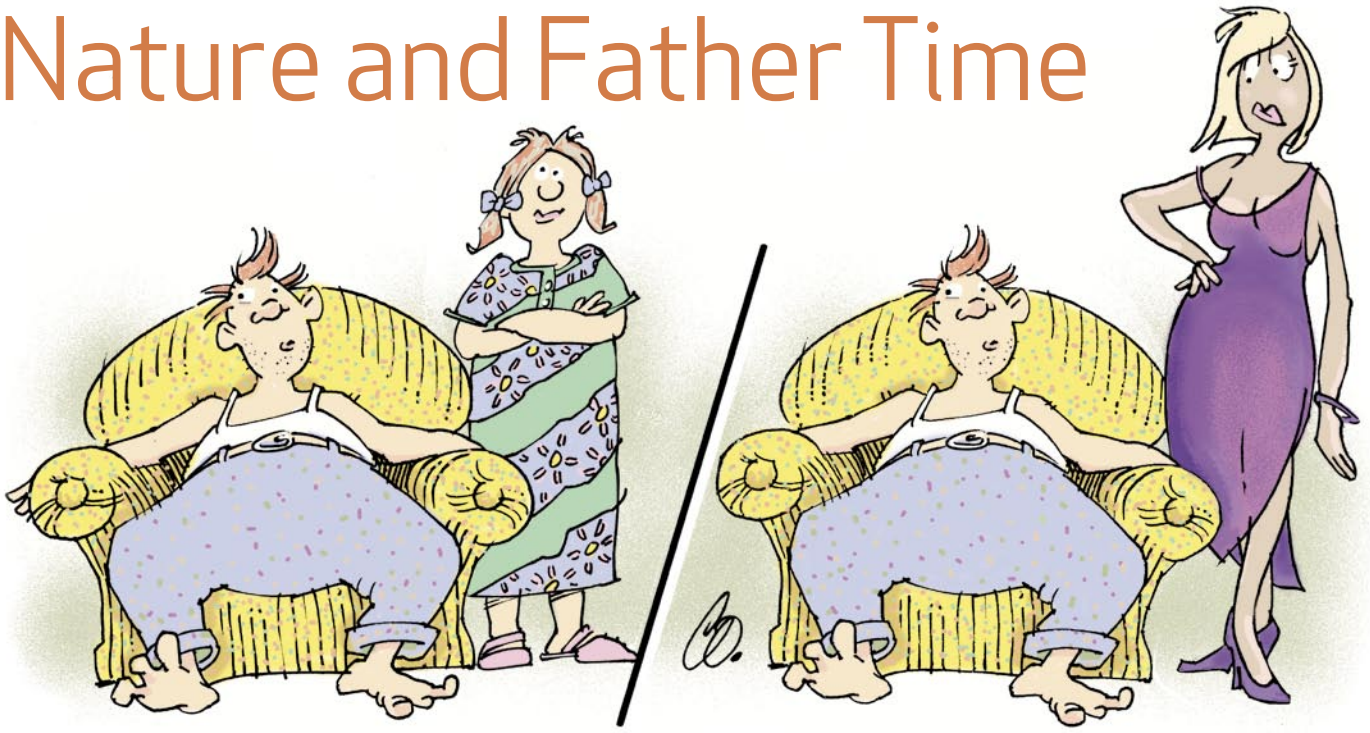
The War Against Mother Nature and Father Time



Obviously, it is too late to point out the solution to population explosion lies in teaching people the value of good breeding as opposed to fast.

Robert D. Horseman, DDS

ILLUSTRATION BY CHARLIE O. HAYWARD.

Just recently, the population of the United States topped 300,000,000 people. This has occurred when half of the world would like to see the other half get off the Earth. As various acerbic pundits have noted throughout history — George Bernard Shaw, for example, snarked, "The world is populated in the main by people who should not exist." Even William Makepeace Thackery opined as early as 1859 that "if people only made prudent marriages, what a stop to population there would be." He died in 1863 before this could be implemented.

Obviously, it is too late to point out the solution to population explosion lies in teaching people the value of good breeding as opposed to fast. Although the aim of birth control is to make the population less dense, our high birth rate is producing people faster than our cars can decimate them, even on holiday weekends.

On a brighter note, the population explosion is not an unmixed evil.

Look what it has done for Toys "R" Us, Sony PlayStations, television, and that portion of the shoe industry formerly known as "sneakers." Consider that approximately half of the U.S. population is female. Almost without exception, that 150 million is going to be dissatisfied with its physical appearance sooner or later, probably sooner if Hollywood and the modeling industry continue to have their way.

Progress brings with it an increased appreciation of beauty wherein Mother Nature confronts Father Time. Trying to improve on one while fooling the other has become a major industry rivaling that of the production of lawyers.

As far as the other 150 million is concerned, it is going to go quietly bald, pot-bellied, liver-spotted, and wearing pants that badly need the services of a tailor to take in the seat. This, in spite of efforts to make after-shave lotions smell like Marlboro County.

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DR. BOB, CONTINUED FROM 158

In the not too distant past, the word "cosmetic" conjured up a vision of jars, tubes, and sprays all plainly labeled "In case of swallowing, induce vomiting and call your doctor immediately even though your chances of speaking to him are nonexistent." Today, cosmetic is conjoined at the hip with the word "surgery" and labeled in very small print with the warning "In case you are not fully loaded, call your banker immediately as this is not a covered benefit."

To ensure the TV-drugged populace does not lose sight of the Big Picture, a show called "Extreme Makeover" has become wildly popular. The premise: a bunch of friends singled out a female member of its group. They surreptitiously took a picture of her just as she stumbled out from a terrible night with three sick kids and submitted it to the producers of "Extreme Makeover." The producers agonized over hundreds of applications sent in by other so-called friends and selected the raw material most likely to justify the "extreme" portion of the show without stretching the budget too much.

The winner was then surprised at home to learn that her friends secretly thought she was such a woofer and before she could express her gratitude adequately, she was whisked off to stand embarrassed before a Beverly Hills plastic surgeon in her generic underwear. On the show, the surgeon surveyed — narrowed-eyed — more bare skin than you are comfortable witnessing.

In accordance with professional standards of "measure twice, cut once," the bodymeister drew significant lines and circles all over her body with a felt-tipped pen, giving a sort of torso-by-Picasso effect. This panorama, he explained in a running commentary, was to be his canvass to rectify the effects of genetics, age, and perhaps too many visits to the onion dip. Ms. Makeover was appropriately stunned at all this attention, which was more than old George at home has given her in the last decade.

Ms. Makeover was appropriately stunned at all this attention, which was more than old George at home has given her in the last decade.

After she and the nose guy chose a pert, but authoritative nose, the bosom guy zeroed in on the material and size of the projected balcon. Implant people determined the chin and cheekbone dimensions, then it was off to the dentist. Of particular, but disappointing, interest to dentists everywhere was that the average treatment planning for "Extreme Makeover" participants seemed to call for a cornucopia of extractions, implants, veneers, bridges and partials, but editing made it all appear to happen at once shortly after the bib was applied.

Nearly six weeks later, still sporting raccoon eyes, a bandaged nose and an astonishing advance in cup size, Ms. Makeover flitted all along Rodeo Drive, reveling in the full attention of an assortment of buff youths with blender-styled hair and six-pack abs. They were enthusiastically debating the effects of swatches of cloth in the latest colors, fussing over whether to go with the pixy cut or a popular version of the just-got-out-of-bed hair style. The eye guy gave her green contacts, so there was that to consider by the pluck, wax, and painting crew.

Finally, it was back to the plastic surgeon's office where staff eagerly awaited the removal of the bandages. It was a dramatic moment for all as the camera zoomed in on what to a casual observer looked to be the victim of an abrupt encounter with a brick wall.

"Well, what do you think?" beamed the surgeon, handing her a mirror as the last bandage was peeled away. Perhaps it was just skillful editing, but invariably, this butterfly emerged from her chrysalis, and burst into tears at the sight of her reflection. She pronounced herself as absolutely thrilled with the results, in spite of the lingering presence of bruises and swelling that made her look as if she were overmatched in a cat fight. It all concluded on a highly emotional note of doctor/patient hugging, and we segued to her triumphant arrival back home where her family and friends had gathered, all dressed up for their first shot at national TV coverage.

As she materialized from behind the curtain and strutted toward them in her Versace gown split to the thigh, twirled, and revealed her brilliantly white new teeth, you had to admit — she looked like a million bucks or close to it. Whatever misgivings the friends had were washed away in a tsunami of tears and an avalanche of hugs. Husband George, stood there with his comb-over and original face, and suddenly realized he had a new woman, one that holds promise of high maintenance compared to the previous model.

What has all this to do with the population explosion? Precious little except to remind you 150,000,000 ladies in the throes of your discontent that we'll get to you, one makeover at a time. Be patient. ■■■■