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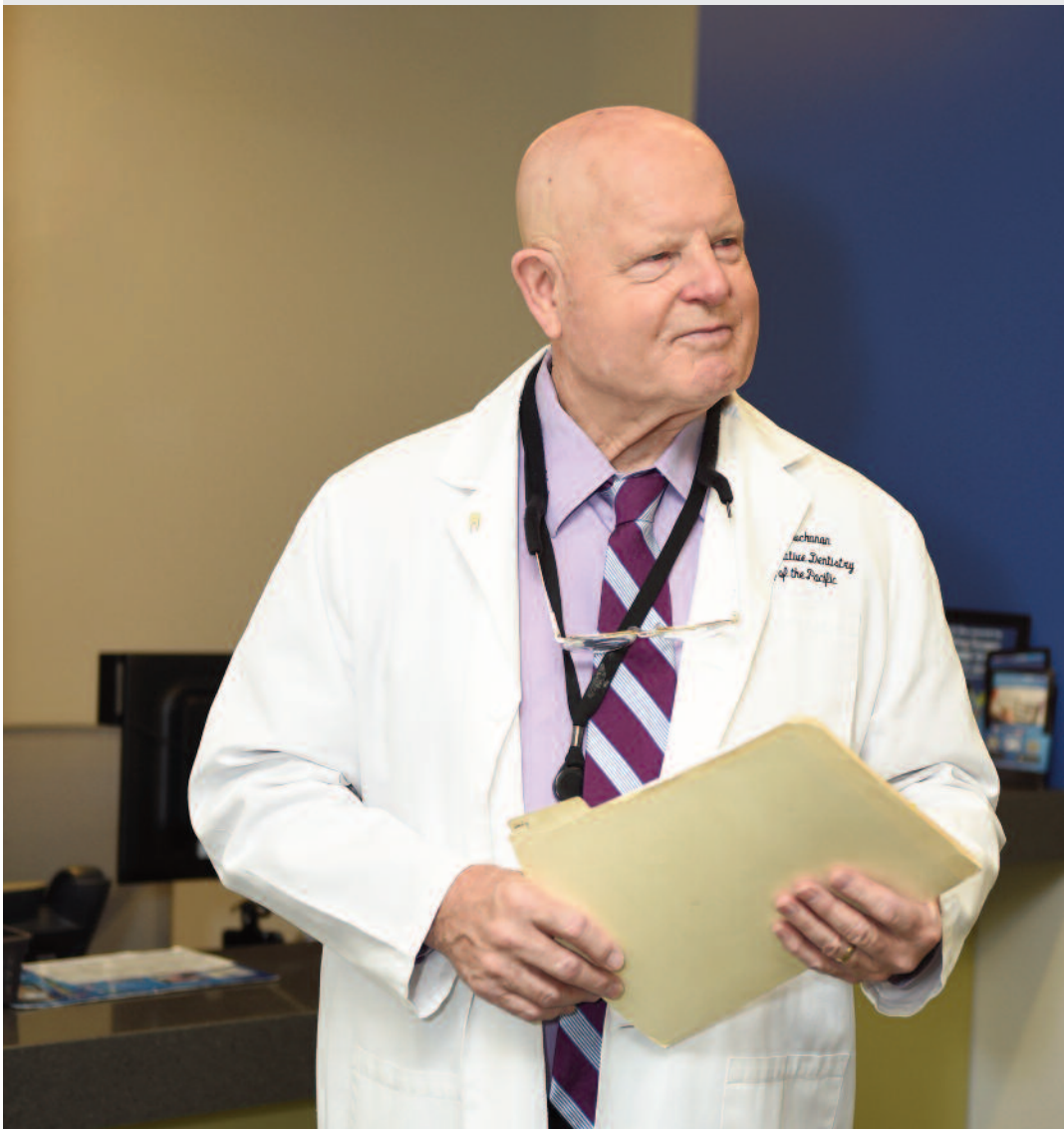

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B. To encourage qualified persons to consider a career in dentistry so that dental health services will be available to all, and to urge broad preparation for such a career at all educational levels;

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D. To encourage, stimulate, and promote research;

E. To improve the public understanding and appreciation of oral health service and its importance to the optimum health of the patient;

F. To encourage the free exchange of ideas and experiences in the interest of better service to the patient;

G. To cooperate with other groups for the advancement of interprofessional relationships in the interest of the public;

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Chairside Perspective on Practice

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From the Editor

Every Pinohc Should Count

Fitness centers have members, restaurants court patrons, shops appeal to customers, most drivers are also seat-belt users, and dentists have patients. The set of those using the services is always smaller than the number who could use the services but, for some reason, do not. We have names for those who are users. But the rest who could come have no name. Without a name these people fade into a vague background.

The dental school where I work moved six months ago to a mixed neighborhood in San Francisco. I drive through the nearby Tenderloin section of town with drunks wandering in the street and fairly regular street closures for police actions. A small homeless encampment has emerged across the street from where I park. During the hour each day I spend coming and going through this neighborhood I seldom think of optimal, continuous, comprehensive oral health care, and never of new esthetic methods for provisional composite resins or computer impressions and milled crowns.

At work I see the patients our faculty and students treat to an incredibly high standard. They are making a worthy contribution to their patients. I just do not know what to say about the others. They have no name.

I propose that henceforth we use the term *pinohc* to designate Persons In Need of Oral Health Care. The second syllable is pronounced "oc," as at the beginning of "occupation"; the "h" for health is, ironically, silent.

What, then is a patient if not a person who needs oral health care? The formal definition of patient would be a person who has agreed to the conditions established by the dentist for receiving care. Certainly, an individual who demands treatment but is unwilling to pay for it is not a patient, nor is one who lives in a remote rural area and decides not to drive four hours to the nearest office. One who does not visit a dentist for ten years because "there is no need" would be difficult to classify as a patient. Somebody who starts a multistage treatment and abandons it would at some point no longer be thought of as a patient. One who puts off an occasional toothache is not a patient. All of these people need oral health care, but they are not patients.

Think of two partially overlapping circles. One is for patients who conform to the expectations of a dentist. One is for pinohcs who would benefit from the kind of care patients receive. An ideal situation would be a very large overlap for the circles. In the best of all possible worlds, all pinohcs would be patients and no one would be treated unless they needed oral health care.

There are people, perhaps 10% to 20% or more in any population, that are neither patients nor pinohcs. No need and no care. The other group to be sensitive to includes the overserved—patrons of dentists who have no present need for oral health treatment. I have in mind routine radiographs and prophies on patients with no risk factors, aggressive treatment plans, some would say automatic extraction of asymptomatic third molars, and esthetic work where the health component is difficult to identify. There is nothing wrong with providing these services, if patients understand what they are paying for. They are patients who are not pinochs.

Now for the hard part. What characterizes an individual as a pinohc? My first approximation would be something general: pinohcs are individuals whose oral health five years from now would be measurably worse if they failed to receive care during the current year. There is lots of room for quibble here, and epidemiologists have careers ahead of them teasing out the nuances of operationalizing this. But the general

point is useful; a pinohc is one who can be helped now to avoid future deterioration in oral health. That should be the focus of dentistry.

There are multiple reasons why an individual would be a pinohc but not a patient. They typically underestimate their need for care and underappreciate the advantage of prevention. Some pinohcs simply do not know how the system works; having similarly struggled with getting a driver's license, needed housing assistance, or legal advice. They also lack the means to get into the private practice system. Some pinohcs are lousy patients because they skip payments, disrupt office routine, and make unrealistic demands. It is understandable that dentists want very few of these and choose to provide charity care in foreign countries where they can control this kind of exposure.

There is no easy way to untangle the multiple barriers preventing pinohcs from becoming patients in satisfactory numbers. One strategy would be for the profession to accept some measure of responsibility for addressing the pinoch issues identified in the preceding paragraph. An alternative would be to provide more and higher quality services to current patients. There are good examples of this model being developed by companies under the protection of the student debt banner. The lead concept there is cherry-picking large margin services advertised as "smile" dentistry. There is pretty scrappy competition for patients.

Slogans to the effect that patients' needs take priority are embarrassing when we realize that "patient" means one who has accepted the dentist's terms. Is it not a bit self-serving to claim it as a virtue putting those at the front of the line who promise to honor our values? Our goal should be to increase the ratio of patients to pinohcs. The first step in this process is to start counting all the people who have needs for oral health care.

The evidence of the past decade is that the circles for patients and for pinochs are separating, with the segment for persons in need of oral health growing faster than the segment for patients. It does not seem quite right to blame this on the pinochs, and hoping that the government will step in to fix the problem smacks of magical thinking. The profession has a choice, and what the profession does will matter most.

I propose that henceforth we use the term *pinohc* to designate Persons In Need of Oral Health Care.

Our goal should be to increase the ratio of patients to pinohcs. The first step in this process is to start counting all the people who have needs for oral health care.

Letters to the Editor

To the Editor,

Kudos to the ACD *Journal* for paying editorial attention to the fundamental changes occurring in the dental delivery system in this country. The classic one-dentist-per-practice cottage industry that patients have been used to for the past hundred years or so is no longer the norm. The trend is toward collaboration while increasing business acumen. "Group practice" now doesn't just mean a group of dentists under one roof, but can also mean a group of practices under one brand. The latter are commonly referred to as "corporate practices" and/or "chains." Under these models the independence of the individual dentist/employee is often severely restricted whether the employer is a licensed dentist, or the de facto ownership is by some type of corporate DSO, which cannot legally own a dental practice in most states (despite their efforts to the contrary).

Unfortunately, the focus of these models is on cost savings and business efficiency, and thus the bottom line becomes the top priority. Profits take precedence over patients. Let me be clear. If this trend continues and the focus is not reset on putting the patient first, the ensuing ethical crisis in dentistry will result in a requiem for professionalism.

The first question in every dental school ethics class is, "what is a health-care professional"? Answer: a licensed expert who puts patients' interest before their own. Simple. Ethical dentists provide dental care, not sell it. This is easier to abide by for a dentist in the second half of a career with a fully funded pension plan, than it is for a recent graduate who is weighed down by six-figure debt. Many of the latter feel forced into the option of getting a job as a dentist in a corporate clinic. Entrepreneurs need not apply. But many of these are soon driven out by disillusionment.

I am aware of the idealistic standards espoused by defenders of corporate dentistry, but there seems to be a clear disconnect between these platitudes and the experiences related by some of their ex-employee/dentists, who are threatened with lawsuits if they divulge their hire-on contracts. Their stories revolve around being pressured to maximize the charges for each appointment. Every patient gets an exam and an x-ray. Every endodontic treatment started is finished now; every crown gets a buildup; every 2 or 3-surface old amalgam is turned into a crown prep. If it's on the treatment plan, they must do it. "Minimally invasive" is banned terminology. Unbundling treatments and up-selling and up-coding are a part of the culture. The dentist/employee is judged solely on production goals and time efficiency.

I realize that every testimonial I've heard, and heard about, can be dismissed as "anecdotal," but the passion with which they are delivered cannot.

If the trend toward commercial business management controlling more and more of dental treatment continues, the balance will eventually tip toward commercial over professional ethics. This could increase cost, decrease access, and erode the traditional safety net. Financial decisions are too intertwined with treatment to be segregated from the operatory.

The ACD and ADA need to continue to monitor these trends in dental care delivery systems, with the realistic perspective that there is an inherent conflict between commercial business strategies and the ethical practice of dentistry. To bend these trends for the best long-term benefit of the individual patient requires every individual dentist to commit to the ethical principles which make them a professional. Then professionalism will continue to define dentistry, despite any management scenario imagined.

Victor J. Barry, DDS, FACD
Seattle, Washington

Dr. Chambers:

I read your *JACD* editorial several times and felt compelled to respond, given the challenging questions it posed. To begin with, just what does "corporate dental practice" really mean? I too wonder how many definitions exist.

I remember that on one long day as a young resident just out of training, I treated patients in a corporate practice. It stands out as the most difficult day in my career. Having said that, I know other GPs and specialists who obviously are better suited to that type of practice than I was.

You presented the idea of a separation of the treatment (dentist-patient) and the management (office-patient). This formally divides the control of these two operations as opposed to the traditional practice in which the owner-dentist is in charge of treating the patient and running the office. On one hand, I suppose it has potential efficiency; but it also runs the risk of removing some of the professional advocacy that dentists are trained to provide.

I agree with you that dentistry has garnered much success in the last 50 years, but I would question your hypothesis about dentistry not increasing higher profits without a change in the business model.

I was fascinated with the list of 15 items that a corporate practice could affect, which was at least twice as many as I could think of. The most profound thing you stated was that we should not lump all of these changes together and give one big up-or-down vote.

Regardless of these and other changes occurring in dentistry, the sanctity of the profession must be maintained, or else the patient (consumer) will find themselves being treated by a tradesman, or worse yet–a healthcare commodity.

Kudos for posing some tough questions and being wise enough to avoid pretending that you have the answers. I don't think many of the answers can even be known at this time. Finally, it is critical that we dentists remain engaged in the conversation and continue to protect our profession; that's a responsibility we can't dare leave up to anybody else.

Steve Leighty, DDS, FACD
Auburn, California

Editor, *JACD* –

The winter number (2015) of the *Journal of the American College of Dentists* discusses one perspective of the new normal for the future of dental practice. I read with great interest the mission and goals of the practice models discussed.

First, change is here to stay. The Affordable Care Act (ACA) and economics are important drivers of the change– that train has left the station. As a dean of a school of dentistry, I try to help navigate the uncertainty of what our profession will look like in the next two decades and, when I have the rare opportunity to be in a position of influence, to help guide a responsible, principled pathway. Frequently I wonder how should our educational system change to meet the need to educate practitioners of the future when there is no definition for exactly how dental practice will change?

This environment is leading our profession in a race for relevance to meet the oral health needs of a diverse public where new structural frameworks, impacted by economic influences, abound. The contributors to this issue of the journal have tested new ways of organizing, delivering, and managing dental practice and they are creating new categories of practice design. Capturing shifting markets of need, addressing efficiency, improving collaboration, looking at outcomes, improving access to dental care among those in need, and implementing EBD/best practices while caring for patients are themes throughout the discussions.

In the March issue of *JADA* this year, the association's Chief Economist and VP of the Health Policy Institute, Dr. Marko Vujicic, captures the sentiment of change in the question of the value proposition of oral health care. The ACA and other initiatives will drive the agenda for quality patient care, improved outcomes, and patient satisfaction. The external environment has been changing with new paradigms of group practice and collaborative practice and infinite models that help drive the change to the new imperatives.

In the end, our dental healthcare practice will change to more ACA-accountable care organization-type practices. The majority will most likely be some type of group practice that may involve other health care disciplines and/or multiple dental care providers. Yet to be determined are the myriad iterations that dental practice and dental education will go through before this round of change is done.

Marsha A. Pyle, DDS, MEd, FACD
Kansas City, Missouri

Correction

Practice transition with intelligence and grace. *JACD* 2014, 81 (4). Page 28. The bottom two entries in the Vendor section of the table on the upper left were reversed. It's not always about money..." is a Great Move and "Don't have staff employment contracts" is a Stumble. We regret any confusion this may have caused.

A Short Tour as a Staff Dentist in a Large Group Practice

A Young Dentist, DDS

Abstract

A large group practice can be owned and managed by a dentist with all business operations internal to the organization. Under such a system there can still be a separation of chairside and overall patient oral health considerations. Such a model provides benefits to some dentists—especially those beginning their careers and those who are working a few hours per week at the end of their careers. Centralizing business functions within an office and screening them from the practitioners who provide the care have advantages and disadvantages.

As a new graduate in a competitive job market, I eagerly took a job offer as an associate dentist in a large group practice. The busy multiple-operatory practice, run by a single owner dentist who no longer practiced chairside, was modern and clean, with all of the diagnostic tools and dental materials I was used to having in dental school. After a handful of working interviews in older offices, this paperless and high-tech practice was very attractive to me. The model also provided in-office specialty care by prosthodontists, orthodontists, periodontists, and endodontists. The opportunity to work with more experienced dentists and specialists on complex cases was appealing, especially in the beginning of my career. It was much like an extension of dental school.

I joined this group of 12 general dentists and specialists, who were in varying stages of career development. In addition to several younger new graduates like myself, there were also experienced dentists who had been at this practice for decades, dentists who had owned their own practices in the past and decided to become associates after selling their practices, and part-time dentists who did not want to manage their own practice. On any given day, there were five to six general dentists working and oftentimes a specialist as well. Staggering dentists' schedules allowed the office to offer appointments from early morning into the evening.

Staff as the Backbone of the Office

My training consisted of learning the electronic records system and practicing recommended doctor-patient scripts with the veteran RDA managers of the practice. The scripts were intended to standardize certain aspects of the interactions between providers and patients, such as greeting new patients and handing off the patients to the financial coordinator to discuss treatment plans. The experienced RDAs proved to be central in this practice with regard to orienting new dentists. During the working interview and short trial-employment period, I was assisted exclusively by the experienced RDAs who assessed the personality fit of new dentists and were given the responsibility of transitioning new dentists into the practice. They set the friendly and caring attitude of the office through their patient interactions and often had more rapport with established patients than the dentists did.

After the initial training period, I was assisted by any of the several RDAs on a rotating basis. The assistants ranged in experience from interns of the local community college RDA program to those having more than 20 years of RDA experience. There were no assistant assignments to a specific dentist, and instead the RDAs rotated among the dentists. Since dentists' schedules were

The author of this personal narrative has asked to remain anonymous.

so varied, rotating the assistants made sure that the assistants could have schedules independent of the dentists and no dentist would be paired consistently with an inexperienced RDA.

There were no hygienists on staff, so the general dentists were responsible for completing all the prophies, scaling and root planing, and periodontal maintenance for their patients. Most patients appreciated having the dentist perform their cleanings and often noted to me that they never had a dentist clean their teeth before. I found that completing the prophies was helpful for getting to know new patients and assessing their level of oral health, but recall exams and routine prophies became tedious over time when my patient volume was more established and I needed time in my schedule for more productive procedures.

Since the office hired part-time specialists, the office preferred to refer out procedures as little as possible. This was very convenient for patients, who were able to go to one office for all of their treatment. The office was set up for specialists to provide the full range of procedures, which most often were implant placements, endodontic retreatments, and apicoectomies. In most cases, the ability to have a quick consult with a specialist to determine acceptable treatment options or to give specific instructions regarding a particular patient's treatment was clinically advantageous as well. However, this practice model was not without limitations. I could not choose the specialists I preferred. Also, when I did refer a patient to an outside specialist, usually to an oral surgeon for more complex surgical procedures with sedation or due to scheduling constraints for urgent endodontic procedures, I was questioned by the practice managers, who would have preferred to keep those procedures in-house.

What Was Expected of Me

Although there was no direct pressure from the management to produce a certain volume each day, the compensation model for both the practitioners and the scheduling coordinators was designed to motivate the whole team to keep a full and busy schedule. My compensation was based solely on a percentage of collections. Bonuses were in place for the scheduling coordinators. The schedule was managed by the front office staff, but I was able to lengthen or shorten appointments as needed.

Most of the patients lived and worked near the office, where several large businesses were located. Thus, the majority of the patients in the practice were insured through their employers. The practice accepted PPO and fee-for-service insurance plans. Due to the evening and weekend appointment availability, I saw a fair number of emergency patients as well. New patients and emergency patients were distributed to dentists based on availability in the schedule. Some new patients requested

My job was to work in the patient's mouth, one appointment at a time. More or less everything else was the responsibility of others.

This model offered a hassle-free opportunity for dentists to provide technical treatment to patients without worrying about the many tedious business aspects of running an office.

specific practitioners based on online reviews or referrals. After the new patient exam and treatment planning, patients could schedule treatment with any of the dentists. The scheduling coordinators tried to keep patients with the dentist who made the treatment plan to preserve continuity of care, and most patients preferred to stay with the dentist who saw them first. However, patient preference and scheduling convenience took precedence over staying with the same practitioner.

There were very few instances when this became problematic, such as when the previous treating dentist's clinical notes were not clear about the next phase of treatment or if the patient was not aware that he or she would be seeing a different dentist. On the other hand, the flexibility in provider coverage was beneficial for ensuring emergency care for my patients while I was out sick or on vacation.

As an independent contractor, there were no paid vacations or sick days, but since there were several dentists who could cover, there was less pressure for me to be present for the patients or for the practice's bottom line.

With the large number of providers and back office auxiliary staff, the practice provided on-site CPR and OSHA continuing education. Occasionally, dental company representatives gave lunch presentations regarding the materials that were used at the practice. Under independent contractor status, no additional continuing education was covered by the practice.

A Narrow Perspective on the Profession

My job was to work in the patient's mouth, one appointment at a time. More or less everything else was the responsibility of others.

During the three years I worked at this office, I came to appreciate the separation between the financial aspects of practice and the chairside treatment of patients. The office policy on treatment was quite restrictive, going so far as to block dentists' access to financial modules in the electronic records. After explaining the clinical aspects of the treatment plan with a patient, a front office team member would inform the patient about the treatment cost and insurance coverage, if any.

For me, this separation relieved me from having to explain costs to patients, thus gaining the trust (or at least quieting the cynicism) of patients who might be quick to make a direct link between treatment cost and dentists' pay. In this model, the dentist is allowed to focus on the job he or she was trained to do, i.e., treating patients, and the front office is trained and responsible for a different aspect of care, i.e., collecting/billing insurance.

This particular office was a very successful example of this practice model. This model offered a hassle-free opportunity for dentists to provide technical treatment to patients without worrying about the many tedious business aspects of running an office. For patients, the practice provided many conveniences that a traditional office could not, including one-stop specialist care and weekend appointments.

Ultimately, the office's policy of excluding providers from access to financial information became a problem of transparency for me, since my compensation was based on a percentage of collections and the collection numbers were never disclosed. The compensation was also at the low range for associates in my area. Working late hours and weekend days became strenuous as well, so, after three years, I left to pursue an associate opportunity in a smaller practice.

I was not an anomaly. The office saw several dentists leave well before reaching the three-year mark. As I think back on the efficient training by staff members and the staff management of the long-term care of patients, I wonder whether turnover is built into this practice model. Many young dentists use this as an opportunity to build up speed and then go on to more comprehensive practice models. I wonder about the patients though. ■

Practice Experience with a Practice Management Company

Ron Tankersley, DDS, FACD

Abstract

This article describes the experiences of a dentist using a contracted dental services organization to manage the business aspects of a multisite group oral and maxillofacial practice. The need for help with management functions first became apparent in medicine, and several models emerged there. The model used in this practice sought to take advantage of specialized expertise without reducing practitioners' control over dental decisions, including those going beyond narrow clinical decisions. Personal experiences and suggestions for best fit between practices on contracted services are presented.

I started my private practice with no business education or experience. By the time that I completed my residency in oral and maxillofacial surgery, those rare "practice management" classes during dental school were a distant memory.

Fortunately, in 1971 managing the business aspects of a dental practice was pretty simple. It required diligence, but little business acumen. I was able to secure a practice loan without collateral. Managing personnel, payroll, accounts payable, and accounts receivable were "logical." There were no onerous government regulations. For those who conducted themselves in an ethical manner, there were few legal concerns. So, initially, I managed those aspects of the practice myself. Many of my colleagues at that time delegated those responsibilities to trusted members of their allied dental staffs.

Government-sponsored dental benefits programs were in their infancy and most patients had no dental benefits plans. Fees for some oral surgery procedures, such as biopsies, removal of tumors, facial trauma, and removal of impacted third molars, were usually reimbursed by medical insurance. But, insurers only required a description of the procedure and the fee for reimbursement. So, initially, I delegated that responsibility to my receptionist.

The Emerging Need

During the ensuing years, I built two new dental facilities and added three partners. Managing the business of dental practice became increasingly difficult. Federal regulations concerning human resource management, occupational safety, disease control, taxation, patient privacy, and controlled substances became increasingly onerous. Insurance and dental benefits companies developed increasingly burdensome credentialing procedures for the doctors, more difficult-to-understand criteria for benefits coverage, and inexplicably complex claims forms. To some degree, there were legal concerns with almost every aspect of practice.

Eventually, the practice used accountants and attorneys on a regular basis. Those practice management functions that involved special requirements, rules, and regulations were delegated to personnel with the requisite knowledge. The dentists periodically met with the practice manager for updates on the status of

Dr. Tankersley recently retired from a multioffice oral and maxillofacial practice in eastern Virginia. He is a member of the Board of Regents of the American College of Dentists and served as an uncompensated member of the board of the management services organization he describes in this article; omsthinktank@icloud.com.

fees, partner compensation, third-party payer participation, marketing, personnel, and practice expansion. We still regard such decisions as essential elements of *dentistry.*

In addition to private practice, I was involved in both teaching and organized dentistry. So, I understood the impact of the changing environment on graduating dental students, residents, and my colleagues. As an OMS, my involvement with local hospitals gave me a clear view of the environment's dramatic impact on medical practices.

It was becoming increasingly difficult for traditional solo practices and partnerships in medicine to survive. Hospital corporations were developing and aggressively marketing large physician networks. Traditional solo practitioners and partnerships in medicine were unable to compete with the corporate networks in purchasing power and negotiating with third-party payers. More importantly, for all intents and purposes, individual offices were "shut out" of referral networks. The impact on their incomes and futures became undeniable.

So most physicians in my area of the country felt compelled to sell their practices to hospital corporations. Unfortunately, the authority to hire, fire, and determine the salaries of practice personnel was a contractual prerequisite. The corporations could also restrict treatments, set requirements for the number of patient encounters per day, establish production goals, and even terminate physicians from their own practices.

Identifying a Solution

A group of local physicians realized that traditional private practice was unrealistic in this new environment. To be competitive in the medical marketplace, they needed the ability to (a) offer a network of multidisciplinary providers, (b) enhance negotiations with third-party payers, (c) make economy-of-scale purchases, and (d) effectively market their practices. But they wanted to maintain control over the clinical management of their patients and their practice model.

They determined that accomplishing those goals would require a large group of physicians to consolidate their business functions under first-class business leadership. So, they formed a physician-owned corporation. Their corporation selectively invites to join them only highly reputable local physicians who share their vision. It provides management services, but does not interfere with patient treatments. It advocates for ethical guidelines and terminates those physicians who violate them. To this date, it successfully competes with the local hospital corporations and is recognized for providing state-of-the-art, ethical medical care.

I personally knew many of the physicians involved in the formation of this physician-owned medical corporation. Because of the concomitant changes occurring in the dental practice environment, I believed that some aspects of their endeavor might be applicable to dental practice.

In 1998, an OMS surgeon in Oklahoma perceived the need for a practice management company for oral surgeons. As a practicing dentist who was also deeply involved in training OMS residents, he realized that they lacked the background and skills required to competently start a new practice in today's complex business environment. If there were a management company to provide those services, new practitioners could concentrate their efforts on developing the clinical aspects of their practices. A mutual colleague suggested to him that I may be interested in exploring the development of such an organization. So he contacted me.

Over the next few months, a group of oral and maxillofacial surgeons who perceived the need for professional business management of OMS practices, particularly for new or solo practitioners, met several times. We came to the consensus that we should form a practice management company. We agreed that the company should provide business management services that would not interfere with dental practice decisions or "own" the practices. The company should provide the business aspects of human resource functions, but the number of personnel and their salaries should be at the discretion of the practice. But, the company should serve as a resource concerning "best practices" in personnel management, if requested.

I serve as an uncompensated board member of the resulting practice management company. As with most start-up businesses, there were several structural adjustments necessary during the first few years. But, the company's mission and the services that we provide for the practices never changed.

Today, the practice management company provides human resources services, including payroll management. It manages accounts receivables, submission of insurance claims, insurance and hospital credentialing, accounts payable, retirement accounts, and payroll. It also provides accounting

and business-related legal services. Contracting dentists are provided periodic financial reports, which can be individually customized. There are quarterly meetings between the dentists and representatives from the management company to discuss the interface between the business and the practice aspects of each office.

Fees for the management services are based on the actual cost of providing the services, as a percentage of each practice's total revenues. If desired, personal financial planning and tax services are available for an additional fee. Contracting practices use management's Internet-based proprietary practice management software. Practice information, including schedules, financial data, digital x-rays, and patient information are always available with Internet access.

My practice began using the company's management services in 1998. I was involved with hands-on practice management until 2008. At that time, competing professional activities necessitated that I leave those functions to my partners. I retired from practice in January 2015. The remainder of my discussion describes some of my experiences as a contracting dentist with the management company. I will also share some of my observations and recommendations based on those experiences.

Experiences

Accurate and timely practice information is essential for the management contractor to provide its services. Implementing the procedural changes necessitated by that need required considerable effort. Most of this effort has included training staff and dentists to properly use the company's practice management software. But other changes were also necessary. For example, vendors were directed to send routine practice bills directly to the management company. Practice personnel were trained to transmit copies of invoices after verification of the respective deliveries. Although the procedural changes were significant, the company's trainers did a good job of facilitating them with minimal disruption. Of course, for a new practice, this would be initial employee training rather than retraining.

Since insurance claims submissions, billing, payroll, reimbursements, and payables were done by the company, the practice required fewer in-house administrative personnel. But, as a multidentist, multifacility practice, we still needed to retain some administrative staff for "internal" management. So, our reduction in staff salaries was more modest than would be experienced by smaller, less-complex practices. However, the company's expertise in claims submissions, accounts receivables, and financial management quickly increased both gross and net practice revenues.

Our staff quickly embraced management's Internet-based central appointment scheduling. As a multidentist practice with several facilities, the ability to customize the schedules to the needs and desires of each dentist resulted in reduced scheduling frustrations and increased production.

Management reports include the individual dentists' procedures, production, collections, percentage collections, and write-offs. The implications of this data are discussed at quarterly meetings. Positive trends are

[We regard decisions on] fees, partner compensation, third-party payer participation, marketing, personnel, and practice expansion…as essential elements of dentistry.

For practitioners wishing to maintain control of their dental decision-making, but wanting the enhanced business expertise and marketing advantage of a larger group, contracting with a practice management company is a viable option.

explained and continuation of the environment that created them is encouraged. Negative trends, such as decreased time-of-service collections, reduced third-party reimbursements, changes in referral patterns, and erosion of important clinical aspects of the practice, are also noted. Suggestions for reversing those trends are explored. But there are no attempts to alter the dentists' clinical management of patients.

Subsequent to contracting for management services, the practice made major equipment purchases and built two new facilities. Once we communicated our goals to the management company, it took the lead in negotiations with vendors, landlords, and financial institutions to our specifications. It also provided legal services, such as establishing limited liability corporations for the new facilities and forwarding the pertinent information to state agencies.

Management's facilitation of these major practice events significantly decreased the personal hassle involved. The collective experience of the company's team exceeded that of any of our partners or the local professionals that we had previously employed. Coordination of services within the company, made legal and accounting functions seamless. The collective assets of the company and their relationship with financial institutions expedited financing at favorable rates.

The practice also added new partners. Again, the coordinated efforts of management's professional team greatly simplified the legal, accounting, and credentialing issues—but not the selection or need for changing the number or types of practitioners. After we determined the terms of the agreements, the company developed the partnership contracts and explained the legal aspects of them to the new partners. The company also completed and submitted all information necessary for hospital and insurance company credentialing.

Periodically, cash-flow problems in the practice occurred that would have previously resulted in significant short-term decreases in dentist compensation. Knowing our practice assets and business trends, the management company used its collective resources to minimize reduction in dentists' compensations during those times without violating its fiduciary responsibilities.

There were also a few isolated incidents that are noteworthy:

- A new partner with a history of superb clinical practice had a problematic financial situation. The company's professional management team expeditiously straightened out his financial position.
- A former practice manager forged signatures on several reimbursement forms. Members of the management company recognized the forgery, informed the partners about the incidents, and assisted in taking appropriate action. Since handling practice reimbursements was part of the practice manager's duties, it is unlikely that the dentists would have detected these forgeries on their own. Because of the management company, we handled this situation

in a timely manner with minimal disruption to the practice.
- The practice underwent a rather extensive audit of implant sales taxes. With management's help, the audit was concluded without negative consequences.

Quite frankly, I'm not aware of any business-related problem that we encountered that the company's professional staff had not previously encountered.

Observations and Recommendations

There is some truth to the complaint that dental schools have historically failed to provide predoctoral students with all of the management expertise needed to run a solo practice. But there are no grounds for worrying that today's graduates are unfamiliar with providing care in a computer-assisted efficiently structured system managed to optimize patient benefit. All dental schools now use some variation of the model I have described throughout their undergraduate and residency programs.

Increasing numbers of practicing dentists and new graduates are electing to join corporate dental practices. Those corporate dental practices operate on a different model and have a significant ability to influence the patient care provided by the dentists who contract with them. The essential distinction is whether dentists can terminate the contract of their management firm or whether the management firm can terminate the contract of dentists. To grow and protect their "brands," some high-end corporations may expect high standards of care from their dentists. But, since non-dentist corporate stockholders want a good return on their investments, many dental corporations will unfavorably influence the quality of care by restricting treatment options, mandating materials used, or instituting production quotas and bonus systems. They may also step into nonclinical areas that are still fundamentally dental, such as practice location, hours of operation, and the public's image of what oral health care should be.

For practitioners wishing to maintain control of their dental decision-making but wanting the enhanced business expertise and marketing advantage of a larger group, contracting with a practice management company is a viable option.

However, making such a decision is like any other a professional makes. Practice management companies are structured in a variety of ways and have different levels of business expertise and scope. So dentists should carefully research their options.

With a good management company, most practice information is readily available through the Internet. However, some information is available only through the management company. In addition, professional management often makes accounting and administrative decisions that most dentists find difficult to understand because of the complexity of today's financial and legal environment. So trust in the integrity and competence of the management company is crucial. Without that trust, the relationship can quickly unravel.

Contracting with a practice management company should be a value proposition. A dentist needs to feel confident that the management fees are appropriate for the market. Also, good management companies provide services often not used by practices without professional management, such as detailed budgeting and strategic planning. These services can be a valuable asset to the practice. But they only have value if properly used.

Practices unwilling or unable to eliminate key management positions or management functions should consider management companies that offer a la carte services to avoid duplication of services and expenses. But, dentists should keep in mind that the coordination of those individual management services within one company typically enhances their value.

Summary

Practitioners who want to maintain autonomy in dental decision-making, but desire the advantages of a larger clinical network, the marketing and negotiating advantages of a larger group, and business management by business professionals, should consider contracting with a healthcare-savvy practice management company.

If the practice management company is trustworthy, competent, and provides the desired services, it can enhance a practice's business functions and marketing position while permitting dentists to concentrate on their area of expertise, providing good oral health care. ■

A Chairside View of Dentistry in a DSO-Managed Practice

Abstract

Over the past 18 months, 11 young dentists agreed to share their perspective on what it means to work chairside in an office where a dental support organization has the capacity to manage dental aspects of the practice, such as hiring, financial arrangements, and office hours and locations, and where dentists are not able to terminate the management company. All of them have backed out. The reason is the same for each; they had signed contracts that blocked them from telling their stories or even sharing their contracts. The *Journal* reached out to the owners of several such organizations, asking for a waiver of this restriction or, absent that, for them to at least provide chairside dentists who could speak freely.

These pages provide the best picture we have been able to form of what dentists who work for DSOs that manage offices have to say about dentistry.

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A Comprehensive Health Group Practice Model

Daniel Pihlstrom, DDS
Danny White, DDS

Abstract

Permanente Dental Associates includes 17 offices in the Pacific Northwest. Among the distinguishing characteristics of this model are a predominantly HMO structure and integration of care in a general medical program. Staff dentists are on salary and are largely relieved of the business details of practice. Ultimate control of the system is vested in a group of shareholders—the dentists who practice chairside. One of the shareholder-practitioners discusses his perspective on this system.

Permanente Dental Associates, PC (PDA) provides dental care primarily in partnership with Kaiser Foundation Health Plan (KFHP). Together when KFHP insurance companies partner with Permanente doctor groups they form the Kaiser Permanente (KP) brand.

KP Dental began as a federally-funded research project in the late 1960s. Since becoming a free-standing program within Kaiser Permanente's Northwest Region in 1974, it has grown from a single 12-operatory dental office to 17 dental offices that serve more than 235,000 members in the Portland-Vancouver metro area, Longview, Washington, and Salem, Oregon. It is one of the largest group-practice dental programs in the country.

Currently, the Northwest is the only KP region in the United States with a dental program. Based on a prepaid dental care model (HMO), KP Dental has expanded to offer PPO plans, an individual and family plan, coverage for Medicare and Medicaid recipients, and a discount dental program.

KP Dental acts similarly to an accountable care organization (ACO) with regard to care coordination, capitated arrangement, and focused outcomes, though, unlike a full ACO, it is a completely integrated medical provider and payer. PDA is one of the earliest adopters of an integrated care delivery model, with a focus on dental care as part of overall health care.

KP Dental has been continuously accredited by the Accreditation Association for Ambulatory Health Care since 1990 and was the first in the Northwest to achieve dental home accreditation. It has experienced strong growth, gaining approximately 64,000 members (a 37% increase) over the past ten years. January 2016 membership is projected at 240,287.

Ownership Structure

Currently, PDA has nearly 100 shareholder dentists of the 142 dentists that make up PDA. A Dental Director (elected by the shareholders) and his or her dentist leadership team provide the operational oversight of the clinical practice. The Dental Director reports to the Board of Directors composed of six shareholder dentists that are also elected by the shareholders of the corporation for three-year terms.

PDA is a professional corporation (PC) that is owned and governed by its shareholder dentists. The general career path for a new associate is to transition to shareholder after approximately three years. This model of being dentist-owned

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and governed has led to a high level of professional satisfaction for its dentists, evidenced by its employee makeup whereby 70% of its dentists buy into the practice as shareholder owners. The average tenure of its dentists is 11 years for dentists who have been with PDA for more than one year.

Practice models are varied, difficult to define, and guaranteed to change even more rapidly in the future than they have in the past. The most critical feature of these alternatives is who gets to make the final decisions. In our model, key decisions like the size of a clinic, location, services provided, and even the cost of building the clinic are all jointly decided by the dentist corporation and the insurer. This mutual decision making process is a hallmark of our practice because it comes closest to making improved oral health the driving goal. Categories and definitions are perhaps the least important part of understanding the changing practice models in our profession. More important is how these models impact care for patients, dentists, and staff; and how they might change the future of dentistry.

Interview

The focus of this theme issue is how various group practice models look to the dentist at chairside. To find out what it means to practice in an organization based on a comprehensive view of health, I sat down with Dr. Danny White, Professional Director and General Dentist at the Tigard, Oregon, Kaiser Dental Office to discuss his thoughts on the practice model and how it impacts him as a dentist.

How long have you been in your current position? What do you do?

Dr. White: I have been with the group for six years. Prior to that I was in a private practice for 24 years. I am a general dentist engaged in all aspects of managing my patient pool. Basically, I take care of all my patients' oral health needs, treatment plans, patient concerns, patient referrals, emergencies, etc.

What attracted you to the position, did you have any hesitancy, and what else did you consider but not follow?

Dr. White: After many years in private practice I decided to make a change and relocate to another part of the country. At the time, I had considered private practice but the business aspect was not my favorite—I wanted to focus on patient care. I like the fact that in my current practice I am not always on call and don't have to carry a pager everywhere I go, unlike my experience in a private practice. Also, during my 24-year career running a private practice, I think I took two two-week vacations the entire time. I also had to arrange for someone to cover emergencies in my absence from my practice. Plus, there was the overhead of a private practice and the

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sense that while you are away you are not producing anything. Here you are getting paid when you go on vacation—you can truly walk away and not worry about the practice. You know your colleagues will cover for you and your patients while you are away.

In addition, the compensation and benefits are more of a known entity in my current practice. I was initially hesitant to work in an HMO-style practice. Was I going to be told how I had to treat patients? I knew colleagues in private practices that took HMO patients and had to limit care in order to make it work. I didn't want that. And that is certainly not the case here.

I looked at a few group practices and corporate dentistry organizations in the area. Some seemed more like a stepping stone practice with lots of early career dentists. It seemed like they were only there until something else came along. That didn't seem like the case here and the fact that my current practice is connected with a medical organization piqued my interest.

How does your current position fit into your career plans?

Dr. White: This is a great place to finish my career. I have had an opportunity to see both sides of dentistry. I really enjoyed my private practice; however, I am really enjoying this practice too. For me, not having to be worried about the business aspect is huge at this point in the game. The idea of phasing down instead of having to quit dentistry is really appealing to me, and that's an option in my current practice. As long as I have stuff to offer, I want to be part of dentistry as long as I can.

What were the greatest surprises or discoveries (both positive and negative) you encountered?

Dr. White: Positive discoveries? I knew that not having to be running the business was a positive thing. Not everyone likes running a dental office, and there is so much that they don't teach you in dental school about the business aspects of dentistry. Nowadays, you can take additional classes on the business of dentistry or even hire a practice management organization, but that really wasn't the case when I started my practice. Also, being in private practice can cloud your judgment when it comes to patient care. I had known dentists in my community that were known for overtreating patients. Here, I had concerns initially that my treatment plans would be limited or I would be told what treatments I could or couldn't do. But that have never been the case.

I like the connection we have between the medical and dental systems. For example, I had a new patient once who had a very bad looking oral lesion. Because my dental office is located in a medical building with an ENT department, I walked the patient up and within no time he had been biopsied and diagnosed with oral cancer. That was just amazing and great for the patient.

It can be difficult here to refer to a specialist quickly. In my private practice, if I needed patients to see an endodontist, they could get an appointment in a couple of days. I could decide to start the endo or not. But here I have to manage those patients more because the wait to see a specialist is much longer. Of course we can refer to specialists outside the program if we need to, but access issues and demand is just greater here and it can create challenges with getting in patients in a timely manner.

What are the advantages and disadvantages of separating the management and treatment functions of dentistry for patients, dentists, and the profession?

Dr. White: For the patients, the dentists can focus on patient care and not have to worry about meeting bottom lines or financial aspects. In our model, the goal is to get the patient to a state of health and maintenance, because if we can, in the long run the patient is going to be easier to care for and have fewer needs. That's not always the goal in private practice. The disadvantage for patients here is access. It can take longer to get the care completed here. For dentists, the advantages are that you don't have to worry about overhead, collections, claims going out, patients paying their portions, etc. Not having to worry about the practice management side of it is huge.

At chairside, each dentists makes his or her own professional decisions. At the level of the overall organization, we have a management team that looks after the business decisions, and in our case, management even includes experts trained in and responsible for quality and overall patient health outcomes. Like some other large group models, we have shareholders who oversee the managers. But in our case, the shareholders are the dentists who treat the patients.

For the profession, I think the advantage is that it creates a really good opportunity for dentists who don't want to run a practice themselves. They can practice in a really good environment where they can focus on patient care, get paid well, and not have those worries about the business. Plus being part of the patient's healthcare team is a huge advantage in our program. ■

The Indian Health Service Model from the Treatment Perspective

Mandie L. Smith, DDS

Abstract

The nonprofit dental delivery model is appropriate for the needs of specific patient populations. The Indian Health Service is an example of how care can be provided where traditional fee-for-service and indemnity mechanisms may be insufficient. Separating care from management in this context gives dentists greater power over individual treatment decisions, increased choice of patient-relevant care options, and control over development of the practice model and its evolution. The needs of various populations groups and the funding or profit model inevitably influence the composition of the dental team and assignment of dental duties.

In 2002, I began my dental career in an Indian Health Service hospital in western Alaska. With tundra and a horizon as far as the eye could see, Bethel, Alaska, is a hub for 48 villages spread across an area the size of the state of Oregon. Many young professionals have been drawn to this remote community for its novelty, uniqueness, and cultural richness. Lifelong friendships are made, partly through the hardships of isolation from the outside world. There are no roads out; they all terminate in the tundra. The reality that access to care here is a critical deficiency and a daily struggle for the people of the Yukon-Kuskokwim region was overwhelming for this South Texas graduate, but it also solidified my calling to public health dentistry as a career choice.

I had a deep desire to help those with the greatest need. I knew that I could go into private practice anywhere, but it was not just anywhere that I could use my skills to make such a difference. Besides, only in Alaska can you travel by floatplane or a dog sled to get to work for the day. The adventure of Alaska superseded any thoughts of private practice ownership or ideals of a conformed lifestyle in a big city. Understandably, my choice is not for everybody, but it is my passion.

The majority of patient care in Bethel is urgent, with severe dental decay and dental infections being the norm. I was relying on my experienced colleagues as a safety net for the first year of practice. It was humbling to realize that my newly earned title of doctor and all of my years in school were only a foundation for my practice. It is not uncommon to have 20 emergency walk-ins per day, all with urgent needs. I became adept at emergent care, trauma, and severe dental infections in the first two years. This public health experience was exhilarating for a new graduate. Every day brought new experiences and an immense number of challenges. I was able to gain speed and skill without the demands of managing a practice. It was not long after confidence began to settle in and the glow of excitement began to fade that I sought more comprehensive care efforts. I was compelled to seek further training through a two-year advanced education in general dentistry (AEGD) program, which I completed in 2008 in Bethel.

Beyond my advanced education, I also worked closely with the first Dental Health Aide Therapists (DHAT) in 2005-2006. This new mid-level provider category was heavily scrutinized by the profession during its infancy. The work of the DHATs is how the gap in access to

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care for this region is being closed. Alaska's health care system has suffered a shortage of healthcare providers for many years, especially in the rural communities. This led to innovative workforce development strategies such as the creation of the Dental Health Aides and Community Health Aide program in the Alaska tribal health system (Branch, 2014).

Corporate practice models may be economically viable where patients are concentrated to take advantage of economies of scale. They will not work in rural areas. Along with the shortage of dental providers, Alaska Native people suffer significantly higher decay rates than the United States population generally, and they seldom have the resources to afford care in traditional settings. This compounds the access-to-care demands in rural Alaska. A study by the CDC in 2008 reported children from the Alaska region had 1.5 to 4.5 times the number of DMFT (decayed-missing-filled-teeth) than same-aged United States children and 1.6 to 9.0 times the number of decayed teeth. The DHATs were providing care to their own people, their families, and their culture in these high-need villages (Byrd, 2011).

Acceptance of non-native individuals had to be earned and was not easily given among the indigenous population. The DHATs had roots in these villages, and the community was proud to have them back contributing a service locally that otherwise had to be accessed through expensive travel to healthcare facilities. The Alaska workforce has to recruit all dentists from out of state because there is no in-state dental school. The idea of developing local dental professionals was paramount to improving the oral health of remote-area Alaskans and bridging the access-to-care gap.

Having exposure to the overall lifestyle and witnessing the limited access to care issues in western Alaska transformed my idea of what healthcare access should be. The approach to improving oral health by drilling and filling more teeth seems to me naïve. There simply is no way to "manage" this needy population to oral health using a commercial model. At full staff of 14 dentists, there were still not enough resources to even approximate disease control in this region. It was devastating to realize that my education and experience was not enough to solve the insurmountable dental disease and access to care issues that existed in the Yukon Kuskokwim Delta. It was very clear to me that a traditional model of practice would not be effective in treating, managing, and maintaining this high-caries-risk population.

Although public health dentistry is significantly rewarding, the work exhausts one's motivation. I wanted to be part of a large-scale mission to improve the overall health status of the Alaska natives. I conducted a pilot project using the Community Health Aides located in the remote village of Pilot Station, Alaska. The object was to train these aides to apply fluoride varnish at routine visits, such as regular physicals, well-child visits, and annual immunizations. Switching the approach to prevention at the first medical point of contact was a novel idea at the time.

The preliminary results of this project revealed a reduction in the decay rate from 20.9% to 6.7% in school-aged children (Smith, 2008). Because of the sample size, the results only confirmed that this method was worthy of further research. Other health programs were quickly brought to life in the local health corporation using prevention directives in attempts to decrease decay as a transmissible disease. Working in this environment, alongside communities struggling to improve the health status of their members, solidified my career path. I was dedicated to serving the Alaska Native people.

Delivering Care in a Nonprofit Context

I now hold a deputy chief position at the Southeast Alaska Regional Health Consortium (SEARHC), which is a tribal, hospital-based dental clinic in Sitka, Alaska. Sitka is the site of the main hospital servicing Southeast Alaska. The SEARHC dental program is a complex provider hierarchy. The staff includes primary dental health aides, dental health aide therapists, registered dental hygienists (RDH), staff dentists, and advanced education in general dentistry (AEGD) residents, along with a robust pedodontic program. The SEARHC dental program developed a caries control and prevention protocol with the foundation based on a medical methodology, involving the entire SEARHC dental staff. Diagnosing caries risk at each patient exam was the key tool in this protocol. This protocol served to establish consistency among providers in treatment planning and patient recall intervals. This unique work environment offers preventive services, disease control, comprehensive care, and advanced specialty services. This workforce model using paraprofessionals and mid-level dental providers is in place throughout the consortium. Once again, I find myself working directly with primary dental health aides (PDHAs) and DHATs. This delivery model differs from some commercial approaches that use "reverse delegation," having recent dental graduates perform routine prophylaxis, for example.

The PDHAs are prevention specialists that work closely with our RDHs and

work off of a dentist's treatment plan. There are three different levels of training for a PDHA, with each certification providing a higher level of preventive services. These services include, but are not limited to, topical applications of iodine, chlorhexidine varnishes, fluoride varnishes, and sealants. They also provide patient education in cariology and details on preventive products such as xylitol, as well as saliva and caries screening tools. Each patient is provided a customized educational experience based on the results of the screening tools and the dentist's prescription. Dental disease is being treated as an infectious disease here at SEARHC.

The dental health aide therapists are another set of providers that play a critical role in the caries control program. The DHATs have a limited scope and their main focus is disease control. The majority of the DHAT production is operative. After working with several DHATs for over ten years, I am impressed with the clinical abilities and high-quality proficiency that comes out of the Alaska-based DHAT training facility. The training consists of an intense, two-year, hands-on clinical training that includes an in-depth experience with operative dentistry. The DHAT scope of practice limits their practice to preventive and operative dentistry. They are fully capable of diagnosing caries, but are limited in their involvement with comprehensive treatment plans. Complex diagnostic skills, beyond caries detection, are not an emphasis in the training program. DHATs provide high quality workmanship. Independent studies of the clinical performance and patient management techniques of DHATs show that the therapists are performing well and operating safely within their scope of practice (Wetterhall & RTI, 2010).

Using community dental providers (PDHAs and DHATs) is not intended to replace the RDH or the dentist, but rather to be an additional team member who works as a part of a more robust dentist-led team. The addition of these PDHAs and DHATs to the dental team opens opportunity for our patient population to receive advance dental services, such as endodontics, prosthodontics, and oral surgery, by our staff dentists, because the more basic care is performed by these new team members. The downside is that staff dentists and RDHs can become overwhelmed because more difficult cases are loaded into these providers' schedules on a daily basis. The overall goal is to increase access to care, along with more comprehensive services to the community of Southeast Alaska.

A typical adult high-caries-risk patient that comes in for an exam is initially seen by a dentist. After a full mouth series of radiographs and a panoramic film, the dentist will devise a treatment plan to include urgent needs and disease control. The next appointment will be with a DHA, which can usually take place that week or the next week. This is an educational visit, including complete salivary testing, that helps encourage personal owner-ship of the patient's oral condition and treatment needs. The process of caries is discussed in detail. Patients are amazed that a cavity is a bacterial infection and the bacteria can be transmissible. This is the foundation of the treatment plan: to eradicate the bacteria and restore the dentition from the previous destruction of the bacteria. The next appointments are "caries control." If there are urgent needs, the next appointment is with a dentist (an AEGD resident or faculty general dentist) to include extractions, endodontic, and complex cuspal coverage restorations. If the needs are straightforward operative, the next

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appointment is with the DHAT. The goal is to complete caries control within three months of the exam. At each appointment, either iodine applications or chlorhexidine varnish is applied. RDH appointments are made after open cavitations are filled and the patient is given a RDH recall depending on the patients periodontal risk. After caries control is complete, the patient returns to the DHA for a two-week follow-up to have a salivary testing completed again. Hopefully, the bacterial load is insignificant and the oral environment is stable. At this point, the patient is appointed with a dentist for a prosthetic consult to review the needs for restoring occlusion, if needed. In many cases the treatment plan stops at the prosthodontic consult when finances are limited.

For pediatric patients, exams are completed by one of our pediatric specialists or a general dentist, depending on the site. If the child has four quadrants of decay and is two years old or older, he or she is considered for the Operating Room for Full Mouth Dental Rehabilitation. Otherwise the child is appointed within our clinic for caries control completion. The high-risk pediatric patients are followed up by a DHA for three-month recalls and fluoride varnish applications. The DHAs are a critical resource to our program, as they provide the majority of the preventive care in our clinic.

The AEGD program has contributed to improving the access to care and providing advance services at a reduced rate for the Southeast Alaska indigenous population. The program expanded in 2013 to five AEGD dental residents. This has brought a positive contribution to encounters, production, and access to specialty services, such as periodontics and implants, which were not offered before. However, incorporating dental residents into a group practice takes time and resources from the experienced faculty dentists. The experienced dentists see fewer patients in order to directly supervise and support the residents. Procedures typically take longer when performed by residents. The positive perspective is that AEGD residents have been able to provide services at a more affordable cost for the patients as well as securing donated materials and grant funding. Since the dental program has expanded to include a teaching component, it has drawn specialists to provide advance hands-on practicums for the residents and the full-time faculty at SEARHC.

The dentist is the first point of contact for new adult patients. This allows for a thorough exam with a caries risk and periodontal risk assessment. Depending on the age and the risk of the patient, the dentist will then appoint them with the appropriate team provider and the cascade of appointments begins.

My typical day involves wearing many hats. I have a vested interest in my staff, clinic, and patients. I find myself juggling and constantly reprioritizing my time. Patient care is my passion. I treat the more medically compromised and high-anxiety patients in our clinic. I provide the full spectrum of dentistry. Many days I have to switch gears from a provider to a teacher, from a surgeon to an educator, and from a healer to a supervisor. Luckily, I welcome change and embrace the variety of the day. It is truly never boring.

What Dentists Do at Chairside

Staff dentists are the key players in this team model. Staff dentists are high producers of services. They are encouraged to operate at the upper limits of their scope of practice. They function as primary providers and delegate treatment needs to other mid-level providers, as appropriate. They

triage walk-ins. This can become a cumbersome task, with up to ten walk-ins a day. They are also the main providers traveling to remote villages by floatplane. These visits are usually a five-day field trip focusing on disease control. I have heard dentists who work in corporate practices speak enthusiastically about not having to worry about the management aspects of practice so they can concentrate on what they are most trained to do and most like to do. This concept is carried even further in the model I work in. Dentists delegate and supervise many routine tasks so they can focus on those aspects of dentistry that require the greatest skill and provide strong personal satisfaction.

A positive impact to the overall dental program has been provision of more service. Of the 15 staff dentists at SEARHC, we have ten residency-trained general dentists and three specialists. The overall outcome is not only increased access to advanced services, but highly trained dentists with an expanded scope in skill and knowledge. Some of these services, such as complex oral surgery, periodontal surgeries, complicated endodontics, and implant placement, would not be possible without these program advancements. The scope of services provided has expanded with the specialty trainings and allows for more complete care at a local level. The overall encounters have substantially increased with the addition of the resident program and created a net increase of available appointments.

One of the most rewarding observations of the SEARHC dental program has been the effect of the expanded pedodontic services in all of Southeast Alaska. The services have expanded from 400 patient visits in year 2005 to 3,200 patient visits in year 2014. The services have also extended from the main clinical site in Juneau, Alaska, to over seven remote sites in Southeast Alaska.

There are many benefits and challenges with a group practice nonprofit model. The SEARHC dental budget consists of 50% Indian Health Service funds, while the other half is a collection of third-party payments (insurance, grants, Medicaid, and private pay). One of the important characteristics of both operations management and clinical treatment is that production is not related to the take-home pay for staff dental providers or outside equity interests. There is no extrinsic reward for the number of procedures accomplished: there is intrinsic reward for better oral health among those served. All dental providers are on a fixed pay scale that is not associated with production. With a flat fee per visit Medicaid reimbursement rate, some preventive services are reimbursed above the usual and customary fee, while other advanced service fees are reimbursed at a lower than the usual and customary fee. That being said, some of our most experienced clinicians bring in less revenue related to their production compared to a dental health aide (PDHA or DHAT) that is providing high levels of preventive services with a high return fee for service.

Prevention services are highly encouraged in this model practice. SEARHC values that are supported in increasing these preventive services include (a) raising the health status of the Southeast Alaska Native people to the highest possible level and (b) promoting and encouraging healthy lifestyle choices among the people of Southeast Alaska. From a management perspective, production per provider is still evaluated as a critical element in retention of quality providers.

Another challenge in the Indian Health Service practice model is that a large portion of the population we serve is on a fixed monthly income, and they struggle with meeting their financial obligations. Any cost out of pocket for dental services is considered a significant luxury. Most patients seen at the clinic cannot afford advanced fixed prosthetics that dentists recommend to restore function and esthetics. Providers are reluctant to push for treatment plans that consist of crowns and bridges, given a large majority will never be able to pay for the service. Providers are more likely to treatment plan a cusp-protected alloy to extend the tooth's longevity—which is a covered tribal service—and the procedure takes just as long as a crown preparation.

With the growth of the dental program to include direct supervision of DHATs and dental residents, expanding services and increasing available appointments have been more attainable and an added benefit to this practice model. The faculty dentists are willing to teach and provide consultations without it affecting their compensation. Some of the faculty dentists' job descriptions have changed to less production and more hands-on teaching without a reduction in pay; it is an accepted change in duty and not seen as a burden. Well-managed clinic schedules are critical to this practice model. The scheduling can be taxing with a large group practice having several dental providers, each having a different scope of expertise for patient care. Not every dental provider can provide the same type of service. This can be considered difficult to manage for schedulers and providers. All members of the team have to have a thorough understanding of the role of each provider and the service needed, so patients can be scheduled appropriately.

There are many advantages of separating budget management and clinical treatment in the nonprofit group

practice model. I have been able to focus solely on patient needs instead of being motivated by monetary compensation for the services I provide. Time usually does not equate to money for the individual practitioner, only to the quality of care provided. I have been able to provide clinical consultation to DHATs in preceptorship, faculty coverage to the AEGD residents, and quality care for my own patients. It has been greatly rewarding to see the growth in the dental providers over a short period of time. I have the advantage of being a lifelong student in this practice model as well. My strengths as a provider have expanded over my career, with the exposure to hands-on training provided by traveling specialists in our clinic. This additional direct continuing education creates "super-general dentists." The scopes of the remote general dentists are vast and have a broader scope of practice than typical private practice counterparts. Remote general dentists in this practice model tend to handle difficult and advance cases versus referring them out to a specialist. The result is expansion of the covered services for our patient population and a reduction in cost to the clinic by eliminating the referral.

Measuring Our Impact

There are many benefits of working for an Indian Health Service facility like SEARHC. The consortium covers the providers with liability and workers compensation insurance. They also provide an entire human resources department to assist in recruitment, termination, separation, and retirement, as well as the full spectrum of employee evaluations. This can be seen as a huge load off of a new dentist looking to ease into the work force without the headache of finding and managing clinic personnel. The consortium also provides a robust benefit package for health care and retirement incentives. These are all bonus additions to the salary offered. The dentist salary is their take-home pay. There is no overhead of clinic operating costs that has to come out of the dentist salary. It is a stable compensation that provides security and peace of mind. A Dental Managers Committee focuses on administrative objectives, such as clinic expansions, program growth and modifications of policy and procedures. The staff dentists are not burdened with budget concerns or operating expense decisions. Supply ordering, organization of operatories, management of lab cases, scheduling, dental assistant assignments, billing, collections, and clinic oversight are all delegated to other team members. This allows the dentist to provide complete attention on patient care.

Another positive for this practice model is the camaraderie amongst colleagues. There is a network of professionals, all with diverse backgrounds, coming together with the same enthusiasm for helping others. Consults and second opinions can be provided to patients immediately. A team approach to difficult cases can be scheduled within the clinic. The safety net of multiple providers in a clinic provides security and confidence to less-experienced providers. There is a peace of mind leaving the clinic at the end of the day. Most of the providers are able to leave the workload and stress at work and enjoy personal time outside the clinic. Many remote areas in Alaska provide an exceptional outdoor experience. It is not uncommon to kayak to work, hike during one's lunch hour, and fish on the weekend. The value of a work-life balance is priceless for these providers seeking this lifestyle practice choice.

The concept of "growing your own" providers and advancing the training of our existing staff is vital to the success of Alaska's dental workforce. The workforce model of focusing on prevention, using mid-level providers, and distributing the patient load among providers continues to be of value in closing access to care gaps in Alaska. My desire for improving the oral health of this population is my drive and motivation. My hope is to continue to improve the access to care in Alaska by retaining highly trained dental professionals in an underserved part of our nation.

In the past 13 years, I have developed a keen admiration for the Alaskan Native people. Each tribe has a story; a rich history of customs and sacrifice. Tribal values reside in the family unit and include a deep respect for the simplicity of nature. As much as I feel my contributions are improving their quality of life, their culture has transformed mine. Through my experience of working in the Indian Health Service in Alaska, I have become more diversified in my practice and more accepting in my personal life. And so the journey continues... "And I will take the road less traveled by." ■

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Retrospective Evaluation of Treatment Planning for Dental Implant

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Abstract

This retrospective study investigates the diagnostic rationale for the extraction of teeth and their replacement with implants in a dental school setting. Most of the teeth were extracted for restorative reasons (62.7%). The other reasons for extraction were periodontal (35.1%) and endodontic (1.3%). A panel of endodontists disagreed with the treatment-planning dentists' decisions in 40.3% of the cases. Slightly more than half, 52.9%, of the disagreements were for restorative reasons. Most of the decisions in disagreement were made by general dentists (60.6%), far fewer by prosthodontists (25.5%), periodontists (12.2%), and oral surgeons (1.6%). An extensive review of the literature is provided.

There seems to be a general sense in the dental community, that dental implant placement has supplanted tooth preservation therapies, including endodontic, periodontal, and restorative treatments in many treatment-planning decisions (Lang and De Bruyn, 2009; Petropoulos et al, 2006). This observation is even more evident in a dental school setting where students are in attendance for a prescribed period of time and therefore are anxious to experience the implant modality to the greatest extent possible. This trend is certainly energized by the implant manufacturers, who spend heavily in advertising their products and subsidizing implant programs in the dental schools. Thus, it may be reasonable to assume that more tooth extractions for implant placement are currently performed in teaching institutions than in the past. In fact, at our institution, while 1,000 implants were placed in the academic year of this study (2009-10), twice that number were placed during the most recent academic year (2013-14).

Outcomes of dental implant therapy have been primarily used to rationalize tooth extraction over tooth retention in many cases. However, there are studies showing that survival of natural teeth, even those with questionable prognoses, is better than expected after tooth preservation (periodontal) therapy and may not be different from the survival of dental implants in long-term follow-ups (Holm-Pedersen et al, 2007; Salehrabi & Rotstein, 2004; Greenstein et al, 2009).

Holm-Pedersen and colleagues (2007), in a comparison study of teeth and dental implants, stated that after ten years of service, oral implants do not surpass the longevity of even compromised but successfully treated natural teeth. Salehrabi and Rotstein (2004), in an eight-year retention study, reported a 97% survival rate of endodontically treated teeth, which is comparable to that of the dental implant. Greenstein and colleagues (2009) reported that with periodontal surgery and maintenance even angular bony defects fared as well as horizontal sites in terms of long-term retention and stability. The Department of Periodontology at Michigan has documented over 25 prognosticators that should be used to decide on the retention of a natural tooth (Avila et al, 2009). Therefore, a high survival rate of dental implants reported in the literature should not be considered the sole factor during treatment planning to decide whether a tooth is treated for preservation or extracted for an implant.

Until now, no studies have investigated the reasons for extraction of teeth that are specifically planned for dental implant placement. Previous studies have not factored in any treatment plans

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There is a difference between the criteria we used in our retrospective and chart-based review and the criteria used by the treating dentists.

and have only discussed reasons for extraction according to geographic regions (Aida et al, 2006; Byahatti & Ingafou, 2011; Chen et al, 2008; Chestnutt et al, 2000; Chrysanthakopoulos, 2011) and different practice settings (Alomari et al, 2013; Byahatti & Ingafou, 2011; Chestnutt et al, 2000; Chrysanthakopoulos, 2011; Dikbas et al, 2013; Jafarian & Etebarian, 2013; Montando et al, 2012; Touré et al, 2011). Furthermore, in those studies, the reasons for tooth extraction were identified by either treatment-planning dentists (Aida et al, 2006; Byahatti & Ingafou, 2011; Chen et al, 2008; Chestnutt et al, 2000; Chrysanthakopoulos, 2011; Dikbas et al, 2013; Jafarian & Etebarian, 2013; Touré et al, 2011) or independent reviewers of tooth extraction cases (Alomari et al, 2013; Montando et al, 2012). The aim of this retrospective study is to identify the reasons for extraction of teeth and their replacement with dental implants by the dental school faculty, and to investigate the discrepancies in diagnostic rationales used in treatment planning decisions compared with a panel of endodontists.

Materials and Methods

The protocol for this retrospective cross-sectional study was approved by the Institutional Review Board at Columbia University Medical Center. A total of 946 dental implants placed during the academic year from July 1, 2009 through June 30, 2010 were reviewed. The 479 implants that were placed in edentulous areas where the teeth had been previously extracted were excluded from the study. We cannot emphasize enough the positive impact that implant placement has had on oral health over the last 30 years, allowing patients to have fixed prostheses when, previously, removable appliances were the only option. The remaining 467 teeth that were extracted and replaced by dental implants, were included in the study. The data collected included age, sex, location of the extraction site, and reasons for tooth extraction based on the treatment-planning dentists' notes. Data on the treatment-planning dentists were further broken down by area of specialty, including general dentists, prosthodontists, periodontists, oral surgeons, and endodontists. Five reviewers (CS, GH, SL, SA, SK) evaluated the reasons for tooth extraction and determined their agreement or disagreement with each specialty. All reviewers were calibrated prior to their evaluation of the reasons for tooth removal in order to determine whether a tooth needed to be extracted based on the following criteria: (a) restorative reasons for teeth being deemed unsalvageable, including gross caries, perforations and fractures, or (b) periodontal reasons, including severe periodontal disease and poor crown-to-root ratios. Any disagreement among reviewers was resolved by collective discussion. No attempt was made to determine agreement by the panel with cases that were treated endodontically.

Results

The mean age of the 255 patients was 56.5 (±14.2) years. The ratio of male to female patients was 49:51. The maxillary arch was the more frequent site for implants replacing teeth, with the maxillary premolar being the most common location (n=107; 22.9%), followed by the maxillary incisor (n=82; 17.6%), and then the maxillary molar (n=77; 16.5%). The molar was the most common mandibular site (n=61; 13.1%), followed by the mandibular canine (n=39; 8.4%), the mandibular premolar (n=37; 7.9%), and the mandibular incisor (n=39; 7.5%). The maxillary canine was the least extracted tooth type (n=29; 6.2%).

The major reason for extraction of the 467 teeth was restorative (n=293; 62.7%), followed by periodontal considerations (n=164; 35.1%). Only ten teeth were extracted for endodontic reasons.

The panel agreed with 59.7% of the decisions to extract and disagreed with 40.3%. Most of the disagreements were with the general dentists (60%), far fewer with prosthodontists (25%), and even fewer with periodontists (12%).

Discussion

This study was a retrospective evaluation of clinical decisions and identified the reasons for saving a tooth or replacing it with an implant. All our decisions therefore, were based on the review of chart notes and interpretation of radiographs. We were not able to examine the patients or to evaluate the patient's expectations and attitudes about their dental care. In certain cases, had we been present at the treatment planning session, we might have agreed that implant treatment would have best served a particular patient.

Since we as endodontists have a high confidence level in our treatments, and therefore a natural, built-in bias, the high rate of disagreement (40.3%) with the treatment planning dentists, can be understood. It does suggest however, that due to our high rate of disagreement with the rationales for extraction, there is a difference between the criteria we used in our retrospective and chart-based review and the criteria used by the treating dentists.

Clearly, the implant modality represents one of the major advances in dentistry, giving us the ability to replace removable prostheses, however, in our zeal to fully experience the art and science of implant placement in the dental school setting, we must not abandon our ethical and moral dedication to serving our patients in their best interests. This study is not an indictment of any particular category of dentist. It rather exposes the need for a different type of treatment planning experience. Currently, in our institution, a student brings a new patient to the instructor for that day and together they work up the treatment plan. The instructor is usually a general practitioner, who may not possess particular skill sets in treatment planning. This is a random event, and depending on the day and the attending instructor, very different plans might be created.

In the present study, restorative reasons for extraction were the most common (62.7%), which is consistent with most of the previous studies (Aida et al, 2006; Byahatti & Ingafou, 2011; Chen et al, 2008; Chestnutt et al, 2000). Chrysanthakopoulos (2011) showed that dental caries (45.6%) was the most common reason for extraction based on the evaluation of 2,418 extracted teeth. Byahatti and Ingafou (2011) showed similar results, finding the main reason for tooth extraction was due to dental caries (55.9%) in their study of 9,570 extractions. While several other studies showed similar findings (Aida et al, 2006; Alomari et al, 2013; Chestnutt et al, 2000; Jafarian & Etebarian, 2013), a few studies reported periodontal disease to be the main reason for extraction (Dikbas et al, 2013; Montandon et al, 2012). Montandon and colleagues (2012) showed that the periodontal reason was the most common in patients older than 45, whereas dental caries was the major reason in patients up to 44 years old. Dikbas and colleagues (2013) found that 59.1% of extractions with full crowns were due to periodontal reasons. It is reasonable to assume that tooth extraction as a result of restorative reasons would decrease significantly for teeth with full-coverage restorations, and thus the periodontal reason was found to be the second most common reason in a majority of studies (Aida et al, 2006; Alomari et al, 2013; Byahatti & Ingafou, 2011; Chestnutt et al, 2000; Chrysanthakopoulos, 2011; Dikbas et al, 2013) and became the primary cause for extraction in this study. Indeed, in the study that reported that the periodontal reason was the most common, 76.5% of the extracted teeth were coronally restored (Touré et al, 2011), while the restorative reason (gross caries) was the most common reason in the study, where 57.4% of extracted teeth did not have coronal restorations (Zadik et al, 2008).

Perhaps our great disagreement with the "restorative" treatment planners was due to the fact that the restorability of a tooth is often subjective, except in obvious cases such as vertical root fractures or poor crown-to-root ratios. On the other hand, our disagreements for periodontal reasons were far fewer (16.17%). This is because the decision for tooth extraction is based on a thorough review of multiple clinical parameters such as alveolar bone level, furcation involvement, tooth mobility, and probing depth obtained from clinical and radiographic examination in a dental school environment (Avila et al, 2009). Thus, the periodontists' decisions whether to extract or retain a tooth were based on more criteria and this documentation was available during our review. We agreed with 70.5% of extraction cases determined by periodontists, which was far more than those of restorative dentists.

In studies that investigated extraction of root canal-treated teeth, the most frequently identifiable reasons were also either restorative (Chen et al, 2008; Zadik et al, 2008) or periodontal (Touré et al, 2011). Many treatment planners do not regularly consider endodontic

retreatments in situations where an endodontic case is deficient, yet endodontists today routinely perform these procedures, both surgically and nonsurgically. The success rates of nonsurgical root canal retreatment were reported to be approximately 77% in meta-analysis studies (Ng et al, 2008; Torabinejad et al, 2009). A clear distinction must be made between the traditional endodontic surgical technique and the current microsurgical approach. In recent systematic reviews, the success rates of endodontic microsurgery ranged from 89% to 94% (Setzer et al, 2010; Song et al, 2011; Tsesis et al, 2009). Endodontic microsurgery is characterized by a small osteotomy, an adequate root-end resection with a minimal bevel, a retentive root-end preparation without the alteration of original root canal morphology, and a root-end filling with adequate sealing materials, all performed with a high-power magnification and illumination. Resurgery could be considered in cases where the previous root-end surgery did not address the main etiological factors (Song et al, 2010). For example, if the root-end surgery had been performed with a traditional surgical technique characterized by a large osteotomy, a root-end resection with a greater bevel, a root-end preparation with burs, a root-end filling without an adequate seal, and lack of a high-power magnification, it could have been retreated surgically with a microsurgical technique. Song and colleagues (2011), in their prospective study, showed a 92.9% success rate after endodontic resurgery with a microsurgical technique. This is in stark contrast to Peterson and Gutmann (2001), who reported a 35.7% success rate with the traditional surgical technique.

During the review of cases, numerous teeth were found to have been extracted because they were determined to be unrestorable based on an unfavorable crown-to-root ratio, taking into account the amount of tooth structure that would remain after caries excavation and subsequent crown lengthening for a full coverage restoration. The concept of crown-to-root ratio was well illustrated by Shillingburg and colleagues (1997), who reported that 1:1 is a minimum crown-to-root ratio for a tooth to be used as an abutment. However, other clinical outcome studies did not fully support the idea of determining restorability based only on this one criterion. Nyman and colleagues (1975) showed that teeth that had a far greater than 1:1 crown-to-root ratio due to advanced periodontal disease could be retained with stability for 2 to 6 years after periodontal treatment, when the teeth were used as abutments for extensive fixed partial dentures. In addition, McGuire and Nunn (1996) demonstrated that, based on the observation of 2,509 teeth under periodontal maintenance therapy, long-term tooth survival could not be predicted by an initial prognosis when all clinical parameters were used as predictors, although an unsatisfactory crown-to-root ratio adversely affected the initial prognosis. Furthermore, there is no clear guideline for a minimum crown-to-root ratio in non-abutment teeth. Therefore, it is reasonable to state that there is a dearth of evidence for the crown-to-root ratio as a singular predictor for tooth retention. The decision to extract should be based on multiple clinical parameters including tooth mobility, periodontal bone loss, root configuration, and the direction of occlusal forces as well as the crown-to-root ratio (Grossmann & Sadan, 2005).

The misconception about the prognosis of root canal-treated teeth with post-retained restorations may be unjustifiably employed as a reason for tooth extraction. It was thought that teeth with post-retained restorations had a negative influence on long-term tooth survival. However, no significant difference was found in tooth survival between full-coverage restorations with and without a post and core buildup (Bitter et al, 2009; Ng et al, 2010). Sorensen and Martinoff (1984) revealed that a post placement did not have a significant effect on tooth survival, based on their evaluation of 1,273 endodontically treated teeth over a 25-year period. Thus, the mere presence of a post and core should not be considered to negatively influence tooth survival.

When dental implant placement is considered as a treatment plan in a teaching institution, posterior teeth that are supported by sound alveolar bone are likely to be primary candidates. Therefore, both molars and premolars that might have been retained with tooth preservation therapy owing to good bone quality are likely to be the same candidates for tooth extraction and dental implant placement when the pressure to find implant candidates is intense, given a fixed patient pool in the dental school environment. This might explain why more premolars are extracted for dental implant placement compared with the numbers in the previous studies. The frequency of extraction of anteriors was similar to that in the previous studies (Aida et al, 2006; Alomari et al, 2013; Chestnutt et al, 2000: Jafarian & Etebarian, 2013; Zadik et al, 2008) or periodontal (Morita et al, 1994; Touré et al, 2011). This may be because the anterior regions are less preferable sites for dental implants due to the bone quality and the higher

technical skills required to meet esthetic demands. The least frequently extracted tooth type was the canine, which is in agreement with other studies (Chestnutt et al, 2000; Jafarian & Etebarian, 2013; Zadik et al, 2008). This may be because the strong bony support around a long single root in this tooth type can withstand advanced periodontal diseases as well as provide a greater chance of being properly restored.

Pecora and colleagues (2012) stated that "excessive extraction of teeth and replacements with implants was our contemporary dilemma." These authors say that "in no way does the longevity of oral implants surpass that of natural teeth, even of those that are compromised for either periodontal or endodontic reasons". The periodontal ligament's stress-absorption capabilities, as well as its ability to
act as a local defense mechanism against the bacterial population, represents significant advantages over an implant that lacks a periodontal ligament (Pecora et al, 2012). A critical observation, often overlooked, is that implant-supported restorations cannot compete with the natural tooth with regard to physical, biomechanical, and sensorial properties. Unlike an implant, a natural tooth has a periodontal ligament with receptors that allow it to adapt to proprioceptive and mechanical forces. Stereognostic ability (recognizing an object by touch) is impaired in subjects rehabilitated with osseo-integrated implants by up to one-third (Jacobs et al, 1997), compared to subjects with natural teeth.

Implant placement may be easier and faster to execute, and perhaps more lucrative outside the dental school setting, than root canal therapy and periodontal maintenance. But this should never be a consideration in treatment planning if we are to preserve our ethical professionalism. ■

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ACD Gies Ethics Project

Do Patients and Dentists See Ethics the Same Way?

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Abstract

The most common approach to ethics in dentistry and bioethics generally is through principles. To be effective, principles must be interpreted in particular situations, and the skill of interpretation requires many years of practice with feedback. The opinions of 91 dentists and 54 patients regarding multiple potential actions and justifications for these actions were gathered for eight dental ethics cases. The summary responses of dentists and patients have been integrated as feedback in an online ethics education exercise that individual dentists can use (see www.dentalethics.org/idea). The dataset of responses was also analyzed for general findings. It emerged that patients and dentists agree to a substantial extent on the average approaches, but they differ systematically on certain of the details. Some ethical issues stimulated a narrow range of responses while others, especially those of a nonclinical nature were regarded as ambiguous and are thus good candidates for future ethics training. A factor analysis revealed a five-dimension structure underlying dental ethics. Patients are most apt to view dentistry using a lens of oral health outcomes while practitioners prefer to stress the process and the technical dimensions of practice. The largest area of difference was patients' much greater interest in dentists assuming an active role as patient oral health advocates with their colleagues.

There are troubling situations in dentistry where there is reason to follow one course of action and also reason to pursue a contrary path. This is one of the characteristics of a profession that calls for the highest levels of skill and integrity. Doing the wrong thing for the wrong reason can undo beautiful technical work and biological acumen. Deciding whether to honor a patient request (respect for autonomy) for a treatment that is of questionable value (nonmaleficence) is a problem that arises from time to time. Deciding whether to take action, and if so what action, and for what real motives, when a colleague's work is pretty regularly seen to be below the standard of care is a test of loyalty—to the profession and to the public. These are called ethical dilemmas because there is something worthwhile to be said on both sides of the matter. Other times behavior is simply wrong but tempting. It is hard to think of circumstances that would justify overtreatment, upcoding insurance claims, or permitting a hostile work environment, but it happens. Although these are not dilemmas, we might still expect to see a range of behavior, supported by interpretations of particular circumstances and personal value systems.

Patients bring their own moral standards to the table. Some are likely to be sensitive to and speak up about particular tough choices that dentists face and overlook others. Some patients use highly personal ethical maps. Those who are not patients—including public policymakers, bloggers, and those who vigorously avoid dentists—cannot be prevented from having opinions about what is right and wrong in dentistry.

In the past few decades, the professions have addressed these issues under the heading of "principles." An ethical principle is an abstract standard for appropriate behavior. Veracity (truth telling) and justice (fair distribution of benefits and burdens) are examples. *The Belmont Report* (1979), the first comprehensive American statement of ethical policy in medicine, identified three principles: respect for persons, benefic-ence, and justice (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1979). The field of bioethics exploded in the years following, and Tom Beauchamp and James Childress's *Principles of Biomedical Ethics* (2009) has become the fundamental expression of professional principles. Beauchamp and Childress's four cardinal principles are (a) respect for autonomy, (b) nonmaleficence, (c) beneficence, and (d) justice. The American Dental Association added a fifth principle, veracity, which accounts for about 40% of the Code of Professional Conduct and covers mostly dentist-to-dentist issues. The American Society for Bioethics and Humanities uses a code with seven principles. The American Bar Association identifies eight. The

American Medical Association Code of Ethics has nine principles.

Principles offer general guidance, but they are blunt instruments. Specific issues can often be categorized under more than one principle, and these sometimes "guide" action in contrary directions. The tension between conflicting principles is well known. Both the ADA, in their *Principles of Ethics and Code of Professional Conduct,* and Beauchamp and Childress (2009) acknowledge this, and professionals are usually counselled to "use their personal judgment to reach a 'balanced' resolution." The problem is that there is no principle that determines when "balance" has been achieved (Thornton, 2005). Principles need some form of further support to finish the job (Jonsen, 1991).

The bulk of ethics training–both in dental schools and where it appears occasionally in CE formats–as well as codes of conduct–are intended as interpretations of the principles. This is sometimes called the Ethical Syllogism (MacIntyre, 1988). It works like this: Major Premise: Beneficence consists in doing what is best for the patient. Minor Premise: If patients are only informed of treatment options that I favor based on my training, they will always pick sound treatments. Conclusion: It is beneficent to steer patients in informed consent toward optimal oral health. There are no debates in dentistry over whether respect for autonomy or justice, for example, are sound ethical principles. They are. All of the discussion turns on whether specific behaviors are best interpreted as good examples of the principles. Learning to become a professional entails learning how one's colleagues interpret the principles.

Despite their open-endedness, principles are a solid place to start in ethics training for professionals. Particular problems can be examined through the lens of multiple principles to give them depth and to reduce the chance of overlooking something important. Some interpretations of specific cases are clearly wrong and others are among the several alternative acceptable options. Interpretation is necessary, but all interpretations are not equally valid. Becoming a mature ethical professional means a long period of study of a wide range of concrete cases and gradually building interpretative skill. The principles can be memorized in less than a minute: becoming an ethical professional requires a lifetime of practice.

Not all practitioners interpret ethical principles the same way. A doctrinaire insistence on the letter of the law in the kingdom of one's own office may satisfy the urge of consistency. Some dentists use a shallow grounding in ethics because they are confident that they can "just do the right thing." It would be easy to maintain these positons if patients, staff, and associates can be dismissed for not seeing things as the owner-dentist does. In fact, principles may not even be necessary in such cases. Being a professional means contributing to and learning from the collective wisdom of one's colleagues and other important people. Principles begin to play a useful purpose when dentists look to their colleagues and others to see whether better alternatives exist. Ethics becomes part of the language in the conversations that make it possible to grow professionally. Absent comparisons of specific ethical cases, practitioners are apt to stagnate at the level of moral maturity they had when leaving dental school or even earlier in their lives.

It may come as a surprise that there are no American journals for dental ethics. Of the more than 20 in various professional fields, there are multiple examples in medicine, nursing, law, business, clergy, education, and even the military services. This is very likely a reflection of the fact that all of these professions are practiced in settings where professionals interact with each other in public. Since 1998, accreditation standards for U.S. dental schools require documented compliance with the standard that students "must be competent in the application of the principles of ethical decision making and professional responsibility" (Council on Dental Accreditation 2013; Standard 2-20). This is managed in some schools by an hour or sometimes several hours of seminar discussion of cases. This is not enough (Bertolami, 2004).

There are several theories of moral development. James Rest (1973) has extensively studied and modified Lawrence Kohlberg's (1968) developmental stages model of moral reasoning. There are three levels in this characterization of ethics, each having to do with the reasons one uses in reaching moral decisions (and less so with the actions themselves). Rest identifies these levels as (a) "pre-conventional," where the standard is to follow authority and do what is rewarded and avoid what is punished; (b) "conventional," do what your peers expect of you; and (c) "post-conventional," where abstract norms are weighted as a philosopher might. I will use the more descriptive labels: "self," "group," and "ethics" as these appear to capture where individuals orient for finding the ultimate standard for ethical decision making in various cases.

The challenge is to create a safe environment for all dentists who traditionally work in isolation to compare notes, try alternatives, and get feedback to build moral skill. We need a platform

for interaction, and it needs to be pretty large, open to all, and easily available 24/7 for extended periods of time.

As a step toward creating an opportunity for dentists to engage in public interpretation of prototypical ethics cases, the American College of Dentists has created a set of eight cases for discussion. These are available in written form and will soon be available in video format. But there is a significant limitation to the effectiveness of reading about ethics. There should be some way of experimenting with options and learning what one's colleagues would do. Perhaps it would even be useful to know what a representative sample of patients thinks of these situations.

Okay, let's find out. There are two goals in this report: (a) introduce a platform for building interpretative skills in practical ethics for practitioners that can be accessed conveniently from one's office and (b) begin to understand the norms patients and dentists hold regarding various aspects of dental practice.

Materials and Methods

Eight cases were developed, representing a range of problematic situations that could arise in dentistry. There are existing collections of cases in various styles, but I have followed the model of the late Jim Rule in his wonderful book *Ethical Questions in Dentistry* (2004). Rule's cases are longer and more detailed than many in circulation, but they were not written to illustrate predetermined theoretical positions. Although length slows down the reader, it also reduces the chance that one will imagine unstated facts or screen out inconvenient parti-culars from "skeletal" cases to make them fit abstract principles or personal preferences. A little of life's messiness is necessary to be realistic. Although all the cases have multiple dimensions and interesting paths to follow, they are not all dilemmas. The goal is to involve readers in the cases, not for them to be theoretical commentators. The full text of the cases can be seen at www.dentalethics.org/idea. The stem theme for each case and the actions and reasons are shown here in Table 1.

Each case is followed by four to six potential actions, and readers are invited to indicate on a five-point Likert scale how appropriate each action would be. The scale has anchor points of "absolutely," "probably," "50:50," "doubtful," and "no way." The actions are not mutually exclusive. It might be "absolutely" appropriate to initiate two or more actions at the same time and give just a little possible credence to a third that is similar to a choice that should be avoided entirely. There is seldom exactly one response to an ethical challenge. Usually there are several appropriate things that could be done and more than one way to get it wrong. But a forced selection on behavior is important in ethical situations. Too often we mistake performing an analysis of the situation and an enumeration of relevant principles for an ethical choice. They are not. The only way others will know whether we are ethical is by watching what we do.

Each case is also accompanied by from four to six "reasons" or important considerations or ethical goals. The reasons are similarly graded on a Likert scale as "decisive," "important," "not clear," "little importance," or "irrelevant." One could think of the reasons as "justifications" or things that might be said in defense if questioned about what we had done. These reasons represent some of the goals one has in mind when taking action. Again, the reasons are not mutually exclusive. Much of our action is intended to simultaneously optimize several goals and stay out of trouble everywhere it might turn up. The structure of the actions and reasons is intended to place respondents in a realistic situation rather than as an academic exercise of picking the right answer on the best theoretical grounds. Dental school may be like that, but life is not.

Norms were constructed from a sample of dentists and patients, each of which reported what they would do and why for all eight cases. The sample of dentists consisted of 91 national and section officers of the American College of Dentists who were surveyed by mail. The sample of patients was taken from the attendees of two churches in Sonoma, California, totaling 54 responses.

In addition to full descriptive tabulation of the results, t-tests were performed for differences between groups (dentists vs. patients), F-ratios were calculated for homogeneity of variances between multiple groups, a factor analysis with varimax rotation was performed to identify the latent structure in respondents' views of oral health, and correlation matrices were created to reveal associations among the variables.

This project was approved in the exempt category by the IRB at the University of the Pacific, #13-63.

Results

Both dentists and patients were able to use the cases in the format presented. The results are summarized in Table 1 and have been converted to feedback available in the online version of the cases. Additionally, these data have

Table 1. Responses of Patients and Dentists to Eight Ethics Cases

1. Service (Robin Hood): Patient who has immediate need and has used current insurance eligibility requests that dentist perform work but date the insurance claim a month later so as to qualify for coverage.

Mean	*SD*	*%Strong Support*		*%Neutral*		*%Strong Reject*		
Actions								
1.41#	1.39*	*10*	*16*	*18*	*20*	*37*	[TF]	Perform the needed work and submit the claims with later date
.30	.88	*4*	*2*	*0*	*9*	*85*		
1.60#	1.25	*7*	*22*	*18*	*31*	*22*		Perform the work only if Professor X can pay the cash
2.50	1.29	*30*	*23*	*24*	*18*	*8*		
3.08#	.84	*35*	*41*	*20*	*4*	*0*	[TF]	Offer to perform the work at a reduced rate as a public service
2.52	1.03	*17*	*39*	*28*	*13*	*4*		
2.00	1.23	*13*	*18*	*42*	*11*	*16*		Make inquiries concerning other dentist said to postdate claims
1.72	1.22	*11*	*18*	*19*	*39*	*14*		
Reasons								
2.82*	.83	*18*	*52*	*26*	*2*	*2*	[S]	Legal, contractual arrangements with insurance companies
3.27	1.05	*51*	*39*	*1*	*3*	*6*		
3.41	.50*	*41*	*59*	*0*	*0*	*0*	[G]	Patient's oral needs and pressing circumstances
3.21	.79	*37*	*53*	*6*	*3*	*1*		
3.15	.81	*37*	*45*	*14*	*4*	*0*	[E]	Dentist's personal values regarding service
2.77	.92	*45*	*42*	*7*	*4*	*2*		
1.93	1.42	*14*	*27*	*27*	*4*	*29*	[S]	Potential inaccurate dating of the procedure will be detected
2.19	1.71	*26*	*19*	*6*	*9*	*40*		
2.62	1.26	*23*	*45*	*15*	*4*	*13*	[E]	Dental codes and standards in the community
2.52	1.39	*28*	*36*	*14*	*6*	*17*		
3.66*	.47+	*66*	*34*	*0*	*0*	*0*		Overall sense of what is right
3.86	.35	*86*	*14*	*0*	*0*	*0*		

2. Third Opinion (Justifiable Criticism): Strong indications of faulty restorative work, undiagnosed periodontal problems, and overcharging the patient.

Actions								
3.06	1.18	*46*	*33*	*8*	*8*	*6*		Contact dentist who did the work to get his or her side of the story
2.93	1.27	*44*	*30*	*8*	*11*	*7*		
2.32#	.96	*11*	*34*	*32*	*23*	*0*	[PE]	Lodge a formal complaint with the dental society or dental board
1.44	.93	*2*	*8*	*35*	*40*	*15*		
1.83	1.32	*11*	*28*	*15*	*28*	*19*	[PE]	Suggest patient return to first dentist, do nothing else
1.92	1.29	*17*	*18*	*19*	*35*	*12*		
3.80	.45	*82*	*16*	*2*	*0*	*0*		Inform the patient of her present condition, as you see it
3.80	.48	*84*	*13*	*3*	*0*	*0*		
1.18#	1.30#	*7*	*14*	*11*	*27*	*41*	[TF]	Suggest indirectly to colleagues unnamed dentist not up to par
.29	.53	*0*	*0*	*4*	*21*	*75*		
Reasons								
2.96*	.52*	*12*	*73*	*15*	*0*	*0*	[S]	Patient's recollection of what was done and when
2.69	.85	*10*	*62*	*17*	*8*	*52*		
2.26*	1.07	*11*	*32*	*38*	*11*	*9*	[G]	Professional code against unjustifiable colleague criticism
2.64	1.06	*20*	*45*	*20*	*10*	*5*		

(Table 1, Continued)

Mean	SD	%Strong Support		%Neutral		%Strong Reject		
1.22	1.20	2	18	18	24	38	[S]	Dentists are independent; their practices are their business
.92	1.08	1	11	14	26	48		
3.78	.42	78	22	0	0	0	[E]	Current health needs of the patient
3.69	.46	69	31	0	0	0		
1.82	1.17	5	27	32	18	18	[S]	Complexity and uncertainty of interpersonal relationships
2.00	1.16	7	32	32	16	15		
1.78	1.16	2	28	30	20	20	[S]	Patient personality and motives
2.05	1.06	3	35	36	13	13		
3.65	.52	67	31	2	0	0	[E]	Dentists have obligation to all patients and profession generally
3.56	.52	57	42	1	0	0		

3. Who Cares (Generalist-Specialist Relations): Two periodontists in town suddenly both stop returning patients to the referring general dentist and advise patients that they all need "advanced care" that only they can provide.

Actions

1.71+	1.34	13	16	22	27	22		Confine comments to reinforcing the desirability of optimal care
2.32	1.25	20	27	27	14	11		
2.84	.92	24	43	27	4	2		Suggest that patient make an appointment to be seen by specialist
2.82	1.19	32	41	8	13	6		
2.33#	1.03	8	45	22	20	4	[TF]	Invite specialists to lunch to discuss apparent change in referrals
3.40	.83	55	35	5	3	1		
3.13#	.89+	42	33	21	4	0	[TF]	Explore GP-specialist roles with component ethics committee
1.86	1.21	11	22	23	31	13	[PE]	

Reasons

2.43+	1.17	8	59	14	4	14	[S]	Patient's financial situation
2.00	1.14	0	50	15	21	14		
2.67#	.97+	19	44	26	9	2	[S]	Implication that generalist is not competent to maintain patient
3.25	.69	38	50	11	1	0		
2.96	.81	26	49	21	4	0	[G]	Changing trust levels between patient and generalist
3.04	.81	28	54	13	3	1		
3.57#	.57*	61	35	4	0	0	[S]	Accuracy of informed consent so patient understands all choices
3.02	.90	29	53	12	2	3		
3.48*	.58+	52	44	4	0	0	[E]	Patient's freedom to choose the level of care they desire
3.16	.79	32	59	4	2	2		
3.21	.76	35	55	8	0	2	[E]	Importance of optimal oral care
3.37	.62	41	57	1	0	1		

4. Fair Payment (Patient attempts to renege on payment): Patient attempts to renege on part of payment for large completed treatment plan based on failure of part of it that the dentist recommended against.

Actions

.35	.79#	0	6	0	17	77		Agree to patient's suggestion to cut payment
.16	.40	0	0	1	14	85		
2.06	1.22	15	26	17	36	6		Dismiss patient through a formal process and write off the bad debt
1.94	1.16	8	26	29	25	12		

(Continued)

(Table 1, Continued)

Mean	*SD*	*%Strong Support*		*%Neutral*		*%Strong Reject*		
2.88	.96	*26*	*48*	*16*	*8*	*2*	[PE]	Refer patient to peer review for adjudication of disagreement
2.67	1.13	*28*	*33*	*22*	*14*	*3*		
2.01#	1.30+	*14*	*27*	*20*	*23*	*16*	[TF]	Negotiate compromise treatment, partial, extended payments
1.19	1.03	*1*	*15*	*11*	*47*	*26*		
Reasons								
2.73+	1.06+	*16*	*63*	*8*	*6*	*8*	[G]	Dentist's reputation in town
2.26	1.17	*9*	*47*	*16*	*18*	*10*		
3.14	.82	*33*	*53*	*10*	*2*	*2*	[E]	Get patient to accept responsibility for both financial and health issues
3.35	.73	*43*	*52*	*1*	*2*	*1*		
3.46+	.58	*50*	*46*	*4*	*0*	*0*	[S]	Chart notes of options presented, written financial arrangements
3.67	.56	*71*	*27*	*1*	*1*	*0*		
2.49	.86	*2*	*60*	*30*	*2*	*6*	[S]	Potential for protracted dispute and lost time in the office
2.17	1.05	*2*	*51*	*15*	*25*	*7*		
3.08	.82	*29*	*57*	*6*	*8*	*0*	[E]	Addressing patient's compromised dental condition
3.02	.74	*22*	*65*	*9*	*3*	*1*		
2.09	1.15	*6*	*40*	*23*	*19*	*13*	[G]	What other dentists might do in a similar situation
2.16	1.14	*6*	*44*	*24*	*14*	*13*		

5. Coach (Hostile Work Environment): Hygienist complains that patient ("Coach") is verbally sexually harassing her.

Actions								
1.19	1.10+	*6*	*4*	*21*	*40*	*29*		Registered letter dismissing Coach, citing illegality of harassment
1.06	.82	*1*	*4*	*18*	*54*	*23*		
3.20	.95	*46*	*36*	*12*	*4*	*2*		Talk to Coach, explain perceptions, warn of possible termination
3.37	.74	*48*	*45*	*2*	*4*	*0*		
2.73	.95	*33*	*31*	*17*	*13*	*6*		Encourage hygienist to talk with Coach, help her be assertive
2.53	1.23	*23*	*38*	*16*	*16*	*8*		
2.40	1.31	*26*	*30*	*11*	*28*	*6*		Call a staff meeting to discuss the issue
2.68	1.26	*32*	*31*	*17*	*12*	*8*		
.29	.59*	*0*	*2*	*0*	*22*	*76*	[RA]	Dentist does nothing; this is an employee-customer relationship
.16	.40	*0*	*0*	*1*	*13*	*86*		
Reasons								
2.70+	1.02	*12*	*66*	*10*	*4*	*8*	[G]	Reputation of the profession in the community
2.30	1.28	*12*	*48*	*12*	*11*	*16*		
2.49+	1.20	*16*	*47*	*22*	*2*	*13*	[R]	Civil liberties and personal autonomy
2.84	1.00	*25*	*49*	*15*	*8*	*3*		
3.18	.44+	*20*	*78*	*2*	*0*	*0*	[G]	Employee morale
3.34	.60	*40*	*56*	*3*	*1*	*0*		
3.06+	.85	*31*	*51*	*14*	*2*	*2*	[S]	Legal considerations
3.40	.73	*52*	*38*	*8*	*2*	*0*		
2.88	.94	*21*	*58*	*13*	*4*	*4*	[S]	Verbal skills and confidence of the dentist and the hygienist
3.06	.77	*28*	*54*	*13*	*4*	*0*		
3.35	.75	*49*	*39*	*10*	*2*	*0*	[E]	Dentist's personal standards of interpersonal respect
3.36	.90	*54*	*37*	*2*	*4*	*2*		

(Table 1, Continued)

Mean	SD	%Strong Support		%Neutral		%Strong Reject		
6. Tooth Colored Restorations (Informed Consent): Three dentists compare different philosophies regarding treatment presentation of amalgam or composite on posterior restorations. Dr. A aggressively steers all patients toward composite; Dr. B explains both options and lets patients decide; Dr. C simply does what he thinks is best in each case without engaging the patient in the decision.								
Actions								
3.33*	1.03#	*61*	*22*	*12*	*2*	*4*	[Pt]	Off base to offer only composite and replacing sound amalgams
3.82	.47	*85*	*12*	*3*	*0*	*0*		
3.31+	.95#	*56*	*27*	*8*	*8*	*0*	[Pt]	"Selling" perhaps unneeded dentistry as "patient education"
3.63	.53	*66*	*32*	*2*	*0*	*0*		
.66	.77	*0*	*2*	*12*	*36*	*50*	[RA]	Patients asked to decide when not really qualified to judge
.58	.82	*0*	*2*	*14*	*23*	*60*		
.60	.96	*2*	*4*	*8*	*23*	*63*	[RA]	Carrying informed consent too far
.66	.85	*0*	*4*	*11*	*30*	*54*		
3.08	1.12	*44*	*36*	*10*	*4*	*6*	[PE]	Off base to consider only dentist's values
3.25	1.01	*56*	*25*	*12*	*3*	*4*		
.96	1.22	*8*	*4*	*10*	*31*	*47*		Informed consent is unnecessary in such cases
.76	1.16	*7*	*3*	*8*	*23*	*59*		
Reasons								
3.38	.72	*46*	*50*	*2*	*0*	*2*	[E]	Patient autonomy: patients have ultimate say over their own care
3.53	.58	*57*	*39*	*4*	*0*	*0*		
2.19*	.95	*2*	*42*	*37*	*12*	*8*	[E]	Dentist autonomy: dentists allowed to practice as they think best
2.72	1.00	*12*	*68*	*7*	*7*	*7*		
.77	.94	*2*	*4*	*12*	*35*	*48*	[G]	Patients question dentist damages the professional relationship
.73	.92	*0*	*4*	*19*	*22*	*54*		
.68+	.92*	*4*	*2*	*2*	*43*	*49*	[S]	Dentists should only offer the most esthetic and expensive care
.37	.62	*1*	*0*	*1*	*27*	*71*		
2.23	1.38	*12*	*46*	*12*	*8*	*22*	[S]	Dentist's comfort level talking about alternatives and costs with patients
1.89	1.29	*8*	*35*	*14*	*24*	*19*		
1.60	1.24	*0*	*28*	*26*	*16*	*30*	[S]	Whether patient seems intelligent and to value high-end care
1.46	1.19	*3*	*20*	*22*	*27*	*28*		
2.81	1.04	*19*	*62*	*8*	*4*	*8*	[S]	Amount of experience dentist has with the procedures
2.66	.95	*10*	*64*	*14*	*7*	*6*		
7. Full Care (Pro bono Work): As a member of a local service organization that does charitable work, the dentist visits a nursing home is town and discovers substantial unmet need.								
Actions								
.49	.79	*2*	*0*	*6*	*29*	*63*	[OH]	No action–society and insurance have set compensation too low
.73	.86	*0*	*5*	*13*	*33*	*49*		
.28+	.50+	*0*	*0*	*2*	*23*	*74*	[OH]	No action–no lasting impact, might be seen as interference
.51	.67	*0*	*1*	*6*	*36*	*57*		
3.42+	.66	*49*	*45*	*4*	*2*	*0*	[OH]	Work to start program that involving other local dentists in care
3.11	.83	*36*	*44*	*16*	*4*	*0*		
3.24#	.74	*40*	*46*	*12*	*2*	*0*	[OH]	Volunteer one day a month in the nursing home, no matter what
2.57	.97	*17*	*39*	*31*	*11*	*2*		

(Continued)

(Table 1, Continued)

Mean	SD	%Strong Support		%Neutral		%Strong Reject		
Reasons								
2.71	1.08	*16*	*61*	*12*	*2*	*10*	[G]	Reputation of the profession in the community
2.88	.96	*23*	*56*	*10*	*8*	*3*		
3.70	.46	*70*	*30*	*0*	*0*	*0*	[E]	Patient's oral needs
3.57	.50	*57*	*44*	*0*	*0*	*0*		
1.67	1.09	*0*	*29*	*29*	*24*	*18*	[S]	Each provider community and funder functions independently
1.93	1.05	*6*	*24*	*40*	*20*	*11*		

8. Who Decides? (Patient Autonomy): Patient indicates strong preference for veneers in aesthetic region and a disinclination to have needed restorative and periodontal work done first.

Actions								
1.66#	1.15+	*6*	*18*	*30*	*28*	*18*	[OH]	Convince patient that veneers are not always the best choice here
.73	.86	*0*	*5*	*13*	*33*	*49*		
3.26#	.84	*42*	*51*	*2*	*4*	*2*	[OH]	Try to convince patient of dentist's plan for long-term oral health
.51	.67	*0*	*1*	*6*	*36*	*57*		
2.70*	.82	*13*	*53*	*25*	*9*	*0*		Suggest cleaning, replacement filling; postpone full treatment plan
3.11	.83	*36*	*44*	*16*	*4*	*0*		
1.92#	1.13	*8*	*23*	*37*	*19*	*13*	[OH]	Say you value needs above wants and suggest another dentist
2.57	.97	*17*	*39*	*31*	*11*	*2*	[Pt]	
2.11#	1.10	*8*	*34*	*30*	*19*	*9*		Begin work while continuing to educate patient during treatment
1.44	1.21	*5*	*21*	*16*	*33*	*26*		
Reasons								
2.87	.79	*13*	*70*	*9*	*6*	*2*	[E]	Patient autonomy (right to choose what they feel is best)
2.84	.82	*14*	*69*	*9*	*7*	*2*		
3.44	.63	*52*	*40*	*8*	*0*	*0*	[E]	Patient's comprehensive oral needs
3.55	.52	*56*	*43*	*1*	*0*	*0*		
2.75	.57*	*4*	*67*	*27*	*2*	*0*	[E]	Dentist's autonomy (right to choose what they feel is best)
2.85	.89	*17*	*65*	*7*	*9*	*2*		
1.98#	1.13	*6*	*29*	*38*	*12*	*15*	[S]	Legal considerations
2.88	1.06	*27*	*52*	*9*	*7*	*6*		
2.74	1.00	*15*	*56*	*21*	*0*	*8*	[S]	Verbal skills and confidence of the dentist and the hygienist
2.72	.90	*12*	*62*	*14*	*8*	*3*		
1.55#	1.14	*4*	*14*	*41*	*16*	*25*	[S]	Prospect that such a patient will become a management problem
2.56	1.08	*14*	*54*	*15*	*11*	*7*		

NB: The top line in each pair describes patients' responses; the bottom line describes dentists' responses. The means and standard deviations are shown in the first two columns of each set. Higher numbers represent greater agreement with the action or reason or larger standard deviations. Differences between patients and dentists that are significant at $p < .05$ are marked with a +; *represents differences at $p < .01$; # identifies differences significant at $p < .001$. The numbers in italic are percentages in each group choosing each of the five possible responses, with strongly agree on the right. The single letters in square brackets designate level of reasoning: [S] = self, [G] = group, and [E] = ethical. The double letters in square brackets refer to a five-dimension structure derived from factor analysis to characterize the various types of ethical actions. [OH] = oral health outcomes, [TF] = technical focus, [PE] = professional engagement, [RA] = respect for autonomy, and [Pt] = paternalism.

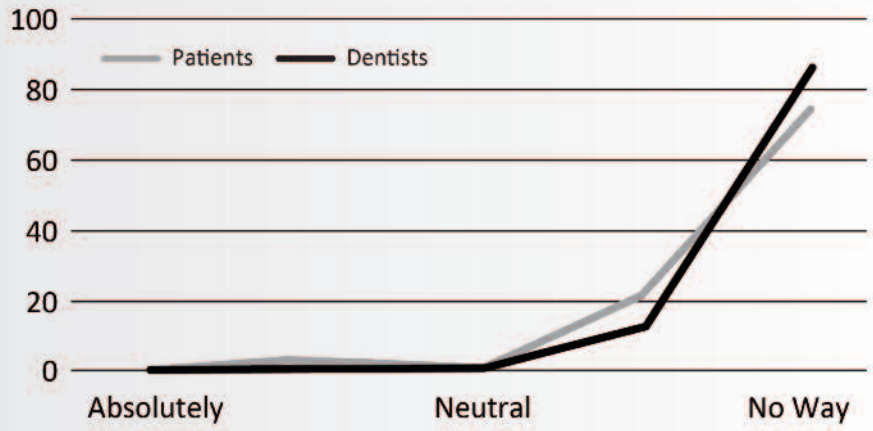
been analyzed by various statistical means to reveal the structure of dentists' and patients' views of ethical issues in dentistry, as reported below.

Skill Building

In the computerized version of the cases, dentist and patient norms appear on the screen as soon as the reader makes his or her choices for the case. This provides instant feedback that takes the place of group discussion in live seminar settings. Currently, the feedback is presented as percentages of patients and dentists selecting each position on the Likert scales for each action and for each reason. Those using the online form of these cases can see how their choices would be viewed by the public and by colleagues.

Consider an example from the case on hostile workplace environment (Coach). One of the actions offered to respondents was to ignore the hygienist's complaint that a patient was making inappropriate remarks on the grounds that such matters are personal between the staff and the patient. Dentists overwhelmingly rejected this as a way of handling the matter, 86% saying "no way" and 13% saying "probably not." Any dentist working through this case who thought seriously about ducking the issue would have to be nimble in creating an excuse for why he or she is different from others in the profession. As it happens, patients see this situation the same way. Among patients, 76% said do not avoid the issue in the strongest possible terms and another 22% considered this a doubtful alternative. Any dentist still thinking that the problem should be left to sort itself out on its own now has to fabricate a justification for the public. Dentists and patients also tended to agree on the reasons various actions should or should not be taken when hostile workplace environments occur. This patterns is shown in graphic format in Figure 1.

Figure 1. Dentist is justified in overlooking harrassment of employee by patient as this is a private matter.



Patients and dentists were of a common mind that employee morale, the law, value in good interpersonal communication skills, and the dentist's sense of integrity are strong reasons for confronting the issue. Slightly less important were reasons such as abstract matters of civil liberties and the dentist's reputation in the community.

There are examples such as this throughout the cases where patients and dentists agree that certain actions and reasons are obviously correct. There are also situations that are more challenging. For example, patients and dentists often disagree regarding a dentist's responsibility for challenging colleagues who are doing faulty work. Not all issues are ones where there is near uniformity on the right action or right reason. For example, dentists are of mix mind regarding whether to dismiss a patient who reneges on payments; the entire range from "absolutely" to "no way" being advocated by many respondents. All of these outcomes where there is no consensus can be valuable for stimulating reflection.

Principles are like a handpiece: they are a tool for doing better dentistry. Knowing about principles is like knowing about handpieces. The real result comes from repeated practice in individual situations. The eight ethics cases in this program are like the mannequins that students used in preclinical technical. They are a good place to start learning.

Understanding the Norms

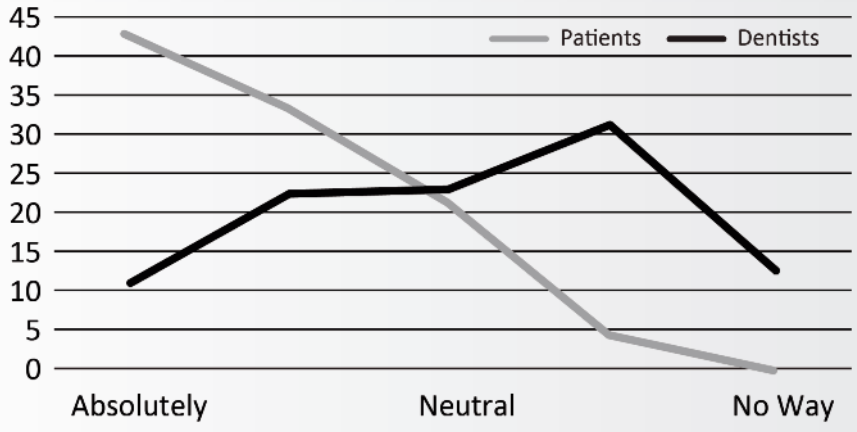
This database can also be studied to learn about patients' and dentists' views of dental ethics. Are there patterns in the way the public or practitioners expect dentists to behave generally or what reasons are appropriate for the way dentists should act? Do patients place more or less weight on ethics and do they see particular situations the same way dentists do? Do we need CE courses on personnel law or on inter-professional management of patients? This is a rich dataset in which to explore such questions.

The full descriptive results are displayed in Table 1. Patients' responses

are on the top line and dentists' responses are below them in each pair. The highest score possible is 4.0, the lowest is 0.0, and the midpoint is 2.0. Means and standard deviations are shown, and symbols are used to flag statistical significance differences between groups. The symbol * indicates that the difference between patients and dentists is significant at the conventional $p < .05$ level; + denotes higher significance ($p < .01$); and # indicates significance at $p < .001$. The absence of a symbol means that no statistically significant difference was detected. Differences between standard deviations were also tested for significance because large ranges may indicate ambiguity or disagreement within each community of respondents. Thus, it matters both where the center of opinion is on each issue (whether the peak of the curve moves right or left) and how widely spread the opinions are (how flat the curve is). The double initials in square brackets signal classifications of actions into one of five categories based on the factor analysis to be described below. Single initials ([S], [G], or [E]) are for given reasons using the relabeled Rest Three-factor Model of moral reasoning.

Figure 2 is a graphic representation of one of the 84 elements in Table 1, Case 3, "Who Cares", action alternative 4. It shows the percentage of respondents selecting each of the five options from strongly favorable to strongly unfavorable for taking up with the component society the issue of specialists not returning patients to the referring general practitioner. On average, patients tend to favor raising the concern at the professional level (3.13, where 2.00 is neutral) while dentists shy away from that (1.86). This difference is statistically significant at $p < .001$.

Figure 2. Involve Component Society with Evidence of Dentist Not Treating to Standard of Care



Further, the standard deviation for patients is .89 compared to the statistically significantly larger standard deviation of 1.21 for dentists. Dentists are more divided in their opinions than are patients. Graphically, the differences in appropriateness of the action is clear as a shift in the two peaks on the curve. Graphically, the difference in consensus of opinion is represented by the overall flatter curve for the dentists.

In the set of 37 possible ethical actions, the most prominent differences between patients and dentists include the following. Dentists are more apt to favor upfront payment, comprehensive treatment plans, limited informed consent, and confidential management of differences among colleagues. Patients value adjustments of payment alternatives and spacing of treatment, full informed consent, better education, active and open engagement of colleagues who are not practicing at the standard of care, and greater involvement of dentists in the general oral health needs of the community.

A striking illustration of the divergence in valued actions concerns a patient who requests veneers on teeth with questionable anatomical support. Should the dentists educate the patient regarding a long-term treatment plan based on health instead? Ninety-three percent of patients say "yes" while 93% of dentists say "no," the apparent reason being partially related to suspicions that this is an "independently minded" patient. More than half the dentists (56%) would refer such patients out of their practices, a policy endorsed by only 31% of patients. Another such example of divergent opinions regarding management of patients whose expectations differ from those of the practitioner involves renegotiating treatment and payment for a patient who is dissatisfied with the initial

work performed by the dentist and not inclined to pay for it. Both patients and dentists agree strongly that letting the patient off the financial hook is inappropriate. But the typical response among patients is to explore breaking treatment plans and payments into segments. Among dentists almost 75% would look unfavorably on this action. Patients are more apt than dentists to favor referring the patient to peer review for adjudication of the disagreement.

Agreement between Dentists and Patients

The Likert responses on each item were converted to a 4-to-0 scale and the average was taken for each item for patients and for dentists, collapsing the dataset to 37 actions and 47 reasons. The correlation between patient and dentist *average* scores for actions was r = .806. The correlation across *averages* for the reasons was r = .911. There is very high global agreement between dentists and patients in how to act and why across the eight cases studied.

Is There One Best Answer (Issue Ambiguity)?

There was consensus on some actions and reasons contrasted with a range of responses on others. Only a dentist who was outside the tight range would need to worry about these ethical issues, and by definition there will be few of them. The profession needs to turn its attention first to those issues where there is little settled opinion. Those challenges where dentists agree with each other and patients are in agreement that something else should be done are also critical and will be discussed below. How wide is the range of preferred responses?

Table 2 presents the results of the first of several analyses intended to show the underlying structure in these data. Of the 37 action items and the 47 reason items, there were none where a single one of the five scale values was agreed by either patients or dentists. In 55% of actions and 68% of reasons, *all five* alternatives from "absolutely/decisive" all the way to "no way/irrelevant" were selected by somebody. This diffuse pattern was also reflected in the modal responses. Where there was consensus, the distribution will be peaked and a large proportion of the responses will be in the mode (most commonly chosen alternative). The mode could range from a low of 20% (meaning that all five alternatives were chosen an equal number of times) to 100% (meaning that one alternative was always selected). Across all 84 items, the average modal response clustered near 50%, meaning that the most popular action or reason was favored by roughly half of the respondents. Alternatively, patients or dentists who chose the response favored by most of their peers were in disagreement with half of those in their group. Patients and dentists were equally spread on both actions and reasons. Dentists were equally spread on their choices of actions and reasons, but patients were slightly more concentrated on reasons than on actions. Items with large standard deviations tended to have larger numbers of missing values, r = .197. This can also be interpreted as a sign of ambiguity—respondents simply chose not to register an opinion and, presumably, would try to avoid rather than address such challenges.

Table 2. Range of Reasons Given for Various Ethical Actions Chosen by Patients and Dentists.

	Actions		Reasons	
	Patients	*Dentists*	*Patients*	*Dentists*
Alternatives used (%)				
1	0	0	0	0
2	0	0	9	6
3	11	16	15	6
4	24	24	21	19
5	65	59	55	68
Mean modal response (%)	46.2	50.1	52.2	53.5
Mean SD	1.00	.93	.89	.89

NB: "Alternatives used" designates proportion of the five available alternatives selected by any respondent per item. For example, 5 means that at least one person chose each alternative; 3 means that two of the alternatives were not used; 1 would indicate complete unanimity. The average modal response is the percentage of respondents selecting the commonly chosen alternative. This number would range from 20% if all five responses were chosen by an equal number of respondents to 100% in the case of unanimity. By paired-comparison t-tests, dentists tended to be more concentrated in their most preferred action than were patients (t = 1.79), but there were no differences between dentists and patients on reasons (t = .80). Reasons were more concentrated than were actions in patients' minds (t = 1.98, two group t-test), but not for dentists (t = 1.01). Mean standard deviation across items was not different across patient or dentist groups or for actions compared with reasons (F-test all under 1.75).

Table 3. Average (Standard Deviation) of Endorsed Reasons for Actions Classified by Moral Reasoning Level

	Self	Group	Ethical	F	p
Total Sample	2.35[a] (.80)	2.53[a] (.71)	3.20[b] (.45)	7.67	.001
Patients	2.30[a] (.75)	2.54[a] (.73)	3.21[b] (.45)	8.77	.001
Dentists	2.39[a] (.89)	2.50[a] (.75)	3.19[b] (.51)	5.50	.007
Patient-Dentist Difference					
t	.34	.11	.10		

NB: Types of action were identified from a factor analysis and only those actions with significant loadings were scored for each action type. In some cases, the direction of scoring was reversed based on factor loadings. The three levels of moral reasoning were categorized based on an approximation of Rest's typology. The F- and p-values on the right reflect one-way ANOVA tests across action types of moral reasoning levels. The t-values at the bottom of each column represent t-tests for differences between patient and dentists. Values having the same superscripted letter cannot be distinguished based on post-hoc Duncan multiple-range tests across types of actions or levels of moral reasoning. There were no significant differences between patients and dentists.

The issues that drew the widest range of opinions for both patients and dentists (standards deviations above 1.25) included truthfulness in filing insurance claims, taking action regarding other dentists' questionable behavior, involving all staff in the hostile workplace matter, and extent of informed consent deemed appropriate. Providing care when the patient is making irregular payments was more of an unsettled issue for dentists than for patients.

Matching Actions to Reasons

It is possible that there are tight connections between actions and the reasons used to justify them—each action based on a dominant reason. It is also possible that reasons support multiple actions. To explore this possibility, all correlations were calculated between actions and reasons and the average taken on a case-by-case basis. The average across all eight cases was $r = .104$. This means that reasons were not specific to actions. Further evidence for negligible action-reason pairing was found by locating those cases where a single reason was associated with a single action. Only 26% of the reasons motivated a single action (operationalized as a correlation significant at the $p < .05$ level), while 40% motivated multiple actions and 34% were not systematically associated with any action. Analyzed from the opposite perspective, 31% of the actions were significantly associated with a single reason, while 44% had multiple motivations, and 25% had none. This finding raises questions about grounding ethical analysis in principles, or at least in expecting to find that principles lead predictably to actions.

Level of Ethical Justification

Forty-seven different reasons for ethics in dentistry is too many to work with. We need to find meaningful groupings. When psychologists, rather than philosophers, study ethics, they look to levels of reasoning or to the sources of these standards. A well-established classification system is James Rest's three categories, which I have modified slightly to emphasize the location of the standard for making ethical choice. Each of the reasons for actions in this study was assigned to one of the categories of Self, Group, or Ethics, and the results are summarized in Table 3.

Self and Group justifications were valued to about the same extent, but the Ethical reasoning category was preferred or given stronger credibility. This grouping was statistically significant. There were no differences between patients and dentists on this score. The literature generally reports that individuals seldom come up with fully Ethical justifications on their own (McNeel, 1994). This study found that where such reasons are provided, they carry weight.

Underlying Structure, Ethical Dimensions of Dentistry

Thirty-seven different courses of action is also too many to work with individually. It is human nature to look for patterns. One might be tempted to say, for example, some dentists are master technicians and others are born salesman. Some are both and some are neither, but the typology still makes sense. Some office staff have names for certain kinds of patients. Every case does not fit perfectly in such systems, but we keep using them because on the whole they guide action with few surprises. There is a formal statistical procedure called factor analysis that uses the computer to identify natural dimensions

Table 4. Factor Structure Among 37 Actions on Eight Cases, 148 Combined Patients and Dentists.

	Factors	Oral Health	Technical Focus	Professional Engagement	Respect for Autonomy	Paternalism
	Variance (%)	*17%*	*16%*	*9%*	*8%*	*7%*
Action	Case					
No action; society and insurance have set compensation too low	Full care	-.813				
No action; no lasting impact; might be seen as interference	Full care	-.723				
Work to start program that involves other local dentists in care	Full care	.681				
Volunteer one day a month in the nursing home, no matter what	Full care	.648				
Convince patient that veneers are not always the best choice here	Who decides	-.614				
Say you value needs above wants and suggest another dentist	Who decides	.512				.527
Try to convince patient of dentist's plan for long-term oral health	Who decides	-.762				
Perform the needed work and submit the claims with later date	Service		-.424			
Offer to perform the work at a reduced rate as a public service	Service		-.526			
Negotiate compromise treatment with partial or extended payments	Fair payment		-.669			
Suggest indirectly to colleagues that unnamed dentist is not up to par	Third opinion		-.594			
Invite specialists to lunch and discuss apparent change in referrals	Who cares		.602			
Explore GP-specialist roles with component ethics committee	Who cares		-.426	.530		
Lodge a formal complaint with the dental society or dental board	Third opinion			.701		
Suggest patient return to first dentist, do nothing else	Third opinion			-.604		
Refer patient to peer review for adjudication of disagreement	Fair payment			.681		
Dentist does nothing; this is an employee-customer relationship	Coach				-.485	
Patients asked to decide when not really qualified to judge	Tooth colored				-.782	
Carrying informed consent too far	Tooth colored				-.811	
Off base to offer only composite and replacing sound amalgams	Tooth colored					.760
"Selling" perhaps unneeded dentistry as "patient education"	Tooth colored					.717

in data based on how respondents group their responses. Factor analysis calls out dimension rather than clusters, so a particular item can "load" (have common properties) on several factors. Combined patient and dentist responses for all 37 actions were submitted to principle components factor analysis with a varimax rotation. Factors were retained based on analysis of scree plots, eigenvalues above 1.0, and meaningfulness of suggested interpretations. Table 4 shows the five factors that were extracted, which together account for 57% of the variance. Only items with significant factor loadings are reported.

Table 4 shows a very clean, five-factor structure. Most actions load on a single one of the five underlying dimensions. The most prominent factor is labeled Oral Health orientation. Items loading on this factor mention positive patient health status independent of treatment activity. The second most prominent factor (Technical Focus) selected for specific treatment, appropriateness of selected treatment, or managing work flow or financial relationships. Professional Engagement, the third factor, included items describing dentist-to-dentist relationships. The fourth factor was the classical ethical principle of Respect for Autonomy. A final dimension has been included for the sometimes mentioned practice of Paternalism. Actions loading on this factor involved behavior where the dentist alone determines what is in the patients' best interests. The same factor structure emerged when separate factor analyses were conducted for patients and for dentists.

Occasionally in such situations, a global factor emerges in a preemptive position that explains most of the variance. This was not the case here, but had that been so, it would have supported the view that there is a global construct—"being ethical"—which characterizes some dentists but not others. This analysis suggests that ethical dental practice is more nuanced and situation-specific.

Ethical Dimensions of Dentistry as Seen by Dentists and Patients

More than half the variation (57%) in the actions chosen by patients and dentists in these ethical dental situations was explained by a five-factor structure. If we know where people stand on these dimensions, we will be able to predict with some confidence how they will act when presented with ethical challenges. It would be helpful to know whether this five-factor structure is applicable to both patients and dentists independently. The answer is sketched in Table 5.

Table 5. Average Preferences (Standard Deviations) for Actions of Various Types Among Patients and Dentists (only items identified in factor analysis included).

	Oral Health	Technical Focus	Professional Engagement	Respect Autonomy	Paternalism	F	p
Total Sample	2.80[a] (1.01)	3.23[a] (.96)	2.44[a] (.67)	4.48[b] (.17)	3.10[a] (.72)	3.97	.008
Patients	3.37[ab] (1.14)	2.75[a] (.84)	2.88[a] (.39)	4.48[b] (.20)	2.86[a] (.81)	2.52	.08
Dentists	2.22[a] (.89)	3.71[ab] (.89)	2.34[a] (.62)	4.48[b] (.18)	3.34[ab] (.67)	4.09	.02
Patient–Dentist Difference							
t	1.72	1.91	2.34	.02	.80		
P	.04	.03	.01				

Higher numbers represent greater endorsement. Only items significantly loading on the identified five-factor structure were included in the calculations.

Table 6. Associations between Action Types and Moral Reasoning Level.

	Patients			Dentists		
	Self	*Group*	*Ethical*	*Self*	*Group*	*Ethical*
Oral Health	-.365+					
Treatment Focus		-.302*			.222*	
Professional Engagement				-.312*		
Respect for Autonomy	-.378+		.269*			
Paternalism						-.265*

Only significant correlation coefficients are shown.
* = $p < .05$ + = $p < .01$

Respect for autonomy, willingness to include others in the decision making process, appeared as a leading ethical dimension for both patients and dentists. After that, some differences begin to emerge. Patients placed a greater salience on behavior that ensures positive oral health outcomes than did dentists. Dentists focus more on the technical aspects of dental treatment. Patients were very significantly more concerned that dentists should engage in professional interactions with colleagues on patients' behalf than were dentists.

Ethical Dimensions of Dentistry and Levels of Ethical Reasoning

Table 6 shows the correlation coefficients between moral reasoning level and types of actions most valued by patients and by dentists. This is a summary of the extracted five dimensions of actions and the three levels of reasons instead of the nearly 400 relationships in Table 1. Patients favoring Self-focused, rule-based approaches over other types of ethical reasoning tended to devalue both oral health outcomes and respect for autonomy. Those with Group orientations were what might be called "casual" with regard to the way dentists preferred to run their practices. The general norm in the patient community contains ambivalent expectations. Those patients who placed a high value on understanding issues from the Ethical point of view were keen on respect for autonomy, they want to be independent moral agents.

Dentists presented a slightly different picture of the relationship between level of ethical reasoning and their structuring of ethical actions. Self-focused reasoning was associated with actions keeping practitioners out of engagement with their colleagues or the professional generally. Group thinking was associated with attention to the business of dentistry and technical performance. The dominant norm by which dentists judge each other appears to be performing technically fine treatment and running a successful practice. Higher Ethical reasoning was negatively associated with paternalism. Seeking the grounds for ethical practice in general standards was considered inconsistent with acting as one's own standard.

Discussion

Eight detailed cases of ethical situations that arise in and around dental practice were reviewed by 54 patients and 91 dentists. The respondents indicated their degree of agreement with multiple courses of actions and justificatory reasons in each case. This dataset was used to create an online interactive ethics learning platform where individual dentists can compare their considered actions and reason against norms from their peers and from a sample of patients. The dataset has also been analyzed in detail to identify the underlying structure of ethics in dental practice.

Although there is substantial agreement on actions and reasons at the aggregate level (patients as a cohort and dentists as a cohort), there are patterns of particular differences that deserve further exploration. Such topics as justifiable criticism, informed consent, financial arrangements and patient responsibility, and dentists' role in oral health beyond the purely technical tasks suggest themselves as very promising for policy discussion and education. These are areas where wide differences of opinion appear and where a range of opinions exists among dentists. The public and the profession seem to have different perspectives on the primacy of technical procedures and oral health outcomes and on how far paternalism should be carried. Another place where patients and dentists seem to be looking

in different directions is on the dentists' obligation to engage colleagues or the profession as a whole on the patients' behalf.

Policy discussions, code revision, and continuing education should focus on those issues where there are material differences in the courses of action preferred by patients and dentists and where dentists exhibit a range of opinions on situations. Practical dental ethics is complex. There is little evidence in this study for grounding dental ethics in theories of ethics. There was no evidence for a general construct—"ethical dentist"—that applies across the boards or for courses of actions to flow directly from principles. John Stuart Mill (1863/1910, p. 24) seems to have been correct in noting "there is no case of moral obligation in which some secondary principle is not involved." The fact that a factor structure with five dimensions emerged rather than a global "ethical/not ethical" dichotomy is consistent with the literature, including the classical Hartshorne and May (1928) study showing that children would steal a lunch but not a pencil or cheat on a test but not in a game, and various individual combinations.

It is not customary for professions to include patients or the public in the development, interpretation, or implementation of their ethics codes. Jürgen Habermas (1990) offers a helpful rule in this regard: all competent individuals who are affected by a decision should be allowed to participate in the decision. Competence in the case of individuals in need of oral health care obviously extends beyond the technical aspects of treatment, as evidenced by the content of most professional codes, and participation can certainly be representative. To the best of my knowledge, no lay individuals were involved in the development of the ADA code and its exact shape and use are strictly controlled by the House of Delegates. By contrast, Institutional Review Boards which are required to pass on all research involving human subjects in America are not permitted by federal regulation to take a vote on any specific proposed project unless there is at least one lay committee member among the quorum (See Code of Federal Regulations, 45 CFR 46).

The level of justification or touch-stone source of deciding what is right to do that was supported by the data in this analysis seems intuitively correct. The Self as standard was associated with unattractive actions for both patients and dentists. These included diminished concern for oral health outcomes, limited professional engagements, and low respect for autonomy. Accepting the norms of one's reference Group appeared to be matched with focus on technical and business aspects of practice for dentists and with some distancing from these characteristics by patients. There is a sense in which this is the public face of dentistry, with practitioners focused on aspects of delivery while patients accept this without enthusiasm and wanting more attention on oral health outcomes. A high level of Ethical reasoning emerged as antithetical to paternalism or the imposing of ones views on others.

The five-factor structure of dental ethics issues produced by the factor analysis approach seems face valid. Oral health outcomes and technical and practice excellence should be on everyone's list as highly valued signs of the best practices and as reflections of the fundamental integrity of dentists. These concepts are present in various places in the ADA code and the codes of specialty and other dental groups.

Paternalism (or more properly limited appeal to it) and individual members and the profession's active self-policing on behalf of patients appeared as dimensions of both patient and dentist's ethical framework. It seems as though this matters a bit more to patients than to dentists. There is research evidence suggesting that Professional Engagement, especially among the most ethical members of the profession, is a more powerful influence on the ethical character of dentistry than are enforcement actions against those who bend or break the rules (Chambers, 2014a). This is an area the profession will find fruitful to explore.

Respect for autonomy was the only ethical dimension that emerged prominently in the present dataset of ethical concerns that is also one of the five organizing principles in the ADA Principles of Ethics. But the fit is not as tight as we would hope. This is the first of the Belmont principles ("Respect for Persons"). The ADA version was changed to feature "Patient Autonomy" (Chambers, 2014b). Certainly respect is implied if not stated, but there are significant differences between patients and persons. Much of the public would not consider itself currently to be patients of record of a dentists, and some of the ethical issues studied here, such as agreement on treatment plans, care for institutionalize individuals in need of treatment, and agreement on payment and selecting and following treatment plans, are exactly about who should be considered a patient. I have long argued

(Chambers, 2003; 2013) that dentists are entitled to exactly the same respect that patients and the public at large have. I would prefer the Belmont language of persons, not patients.

Finally we must return to the beginning and see what has been learned about the role of principles in dental ethics. Philosophers have shown clearly that we can get the job of ethics done just as well without as with principles (Hooker, 1999; Dancy, 2004; Rorty, 1999). A case can be made that patients and dentists can agree with each other generally in practice without sharing a common language or use of principles. There was very little support in these data for a direct connection between reasons for ethical behavior and the actual actions chosen. The five-factor structure for ethics that emerged from analyzing the choices patients and dentists actually made did not match well with systems of principles derived by philosophers.

Aristotle seems to have held reservations about the usefulness of ethical principles. "If theories were sufficient of themselves to make men good, they would deserve to receive any number of handsome rewards.... But it appears in fact that, although they are strong enough to encourage and stimulate the young who are already liberally minded, although they are capable of bringing a soul which is generous and enamored of nobleness under the spell of virtue, they are impotent to inspire the mass of men" (Aristotle, 1920; 343-344).

Principles are useful as theoretical organizers, as the carrying cases for examples of the behavior dentists expect of each other and the public expects of dentists. But they are not the behavior itself or even possibly not the best characterization of the patterns of that behavior.

Further work is needed along these lines to clarify what will most improve oral health and how dentists can know they are on the right path. Working with cases, lots of them over a long time frame and with feedback from colleagues and the public, bid fair to serve this need. ■

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