Dental Reimbursement Special Needs Strangulation

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HELPING FAMILIES IN CRISIS

Kathleen A. Shanel-Hogan, DDS, MA



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The New Reality

entistry has come a long way from its beginnings. We are immersed in issues such as access, an emphasis on prevention, and a marvelous array of new technologies to

utilize in the treatment of patients. For this reason, it is sometimes hard to realize how far the profession has come in erasing from memory those parts of our history that graphically associated pain and discomfort with a trip to the dentist.

However, while uncomfortable states of oral health still exist and are responsible for bringing some patients to the dental office only out of necessity, they no longer predominate the attitude of what dentistry is, or can be to the average person. Let us explain.

In earlier times, dentists were frequently depicted in art as purveyors of pain and suffering, contributing to a less than savory reputation. Sometimes, dentists have also been the target of humorous parodies in film, perhaps less damaging to the psyche, but nonetheless disturbing to the consummate professional.

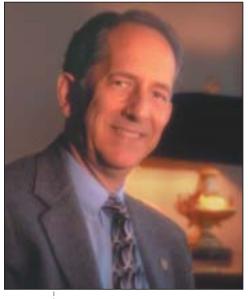
We recall a caricature in Malvin Ring's excellent volume, Dentistry: An Illustrated History, which depicts one of our professional predecessors in a superior position to a seated patient with mouth stretched wide open. The dentist has one foot on the patient's chest; the other balanced on the seat of the four-legged chair as he is aggressively leveraging a forceps or a primitive instrument around a tooth. A nearby female patient-in-waiting appears to be holding her swollen jaw, either out of personal discomfort, or out of sympathy for the unfortunate soul in the chair. A contemporary viewer of this well-drawn artistic rendering might express great sympathy for the "victim" and

would-be victim and considerable dislike for this dentist who also has a somewhat evil facial expression.

Another portrait in sepia tones in Ring's text shows one of our professional predecessors with his hand extended inside a widestretched mouth. The picture has a banner-like caption at the bottom proclaiming, "The Tooth Ache or Torment and Torture." This caption ably characterizes the attitude that many in society probably harbored toward our predecessors. We believe such depictions of the dentist were probably the rule rather than the exception in earlier times.

Periodically, Hollywood has done its part to present profiles of our profession that among a wide variety of possibilities may have provided comic relief or conveyed evil intent. Many of us have discussed these assaults on the dentist from time to time, wondering why our profession, seemingly more often than others, has been forced to bear the brunt of less than flattering characterizations, either of the profession itself or of the idiosyncrasies of individual professionals. Perhaps in contemporary times it has been of some consolation that the attorney has been increasingly replacing the dentist at the center of societal humor.

In this space from time to time, we have discussed the image of the profession. Image deals with respect and reputation achieved by the profession and its contributions to society. What we are talking about here is somewhat different. It is more about attitude than it is about image. And what we are seeing at the present time, is a real opportunity for a change in attitude toward dentistry, courtesy of, you guessed Reality television may play a significant role in changing the decades-old attitudes about dentistry.



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The Editor

it, Hollywood! If early interest is any guide, reality television may play a significant role in changing the decades-old attitudes about dentistry we have just described.

At the outset, we must offer a disclaimer. This writer is not a fan or aficionado of reality television or the weekly series titled "Extreme Makeover." However, if any of us has had the opportunity to view even one episode of this series that includes a dental "makeover," we should be able to understand the potential this show has to convince the populace that dentistry (and dentists) can open exciting new opportunities for even the average person. It is not about relief of pain or maintaining good oral health. It is about treatment that can bring about a massive change in self-esteem for those who seek it.

From what we have been hearing, the dental treatment shown in this series has created great interest, despite the severity, the cost, or any associated risks of treatment. Many will seek the benefits it offers, despite the costs or risks. At the same time, we must remember that in the past, and even in the present, there are some individuals who will continue to endure oral discomfort rather than pursue treatment they believe may provide a painful experience. It is a matter of attitude.

The real-life "makeover" vignettes have been showing that an objective of improved appearance and self-esteem becomes far more important than any of the associated risks or of the downsides, such as post-operative discomfort or recovery. It is also significant that the dental treatment is only a small part of a treatment plan that does involve more serious medical and surgical procedures. In such a situation, the dental treatment may be considered a less risky, less painful component. Of course the improved technology, materials, and management that contemporary dentistry can offer can also help to put the patient at far greater ease in their goal-setting decision process. An improved smile provided by dental treatment may be one of the most noticeable and therefore most desirable incentives to be attained in a total cosmetic treatment package.

We believe that this real-life exposure to dental treatment as part of an extreme makeover plan could promote a significant long-term change in societal attitudes toward dentistry. Because of the improved self-esteem patients will achieve as a result of the effort put forth by the dental professional, we believe dentistry will be accorded a higher level of respect in the future.

The services provided in these "makeovers" shouldn't be considered reparative or oral health-centered. Nor are they purely cosmetic. Many dental colleagues may be uncomfortable with the promotion of this type of dental service. However, the value to the individual who seeks this kind of treatment will transcend the cosmetic label or the allegations of commercialism of the practitioner that might be forthcoming from critics within the profession. In the past, television newsmagazines have featured subjects unfavorable toward dentistry such as Death in the Dental Chair, The Dangers of Mercury in Dental Amalgam, and The Threat of AIDS Transmission in the Dental Office. Instead, a national television audience is now being exposed to dental treatment considered to be of great value to the selfesteem of those who seek and receive it.

It is clear those who will have the greatest interest in the benefits to be achieved from such a treatment plan are women. Not coincidentally, women are responsible for making a majority of dental appointments!

A simple, reality-based television program that may help to positively change existing negative societal attitudes toward dentistry? Stranger things have happened!

It is about treatment that can bring about a massive change in self-esteem for those who seek it.





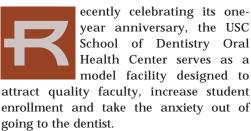


THE 12,500 SQUARE-FOOT FACILITY LOOKS LIKE TODAY, NOT



otos: Steve McClelland Photography

Fresh Concepts in Dental Design



A waterfall, stylish wood paneling, indirect lighting and concierge greet visitors to the center that delivers dental care to approximately 150 patients a day.

According to USC Dean Harold Slavkin, DDS, the 12,500 square-foot facility "looks like today, not yesterday."

Slavkin came to USC with a grand design to recruit and retain top faculty by providing a private-practice environment offering highquality care focused on restorative and cosmetic dentistry. An equal goal was to create a SLAVKIN'S DIRECTIVE WAS TO "DESIGN A STATE-OF-THE-ART FACULTY DENTAL PRACTICE WITH THE AMBIANCE AND SERVICE OF A RITZ-CARLTON HOTEL."



model center for the highest level of care and make it accessible to the surrounding community as well as the university community.

According to Slavkin, there has been a conceptu-

al shift in the way dentistry is practiced today. In the past, dentists were trained to diagnose quickly and spend significant time on treatment. Now, an ounce of prevention goes a long way.

"We take a very careful, detailed approach to health promotion, risk assessment, disease prevention, diagnostics, treatment and therapeutics, and outcomes assessments," Slavkin said. The 21st century is about health outcomes. To ensure the best outcomes, facilities need state-of-the-art equipment, optimal patient experience and proper technology to support administrative

management.

To support a vision of this scale, the school of dentistry needed a more appropriate venue to house both a group faculty practice and an Advanced Education in General Dentistry teaching clinic under one roof. What's more, the center would function in concert with the current teaching and leaning agenda of

the school of dentistry, which includes health promotion, risk assessment and disease prevention.

The challenge was to turn an ordinary space into an aesthetically beautiful and nurturing environment, yet make it functional enough to house 24 operatories, diagnostic equipment and a planned Center for Dental Technology.

Slavkin's directive was to "design a stateof-the-art faculty dental practice with the ambiance and service of a Ritz-Carlton Hotel."

The Neiman Group, a Los Angeles-based architectural firm, was selected to bring Slavkin's vision to life. The firm's influence led the university down a new stylistic path,



which reinterprets the campus' traditional design in a modernist way favoring exploration of new materials, ample space, fresh color pallets and seamless integration of technology and beau-

ty. To create an optimal patient experience, the designers dedicated special attention to creating inviting visual elements, soft lighting, acoustics and visual privacy.

A large concern was to alleviate patient fear that can be aggravated by shrill noises and pungent odors. Care was given to lowering patient anxiety through design elements such as strategically placed fountains, vaulted ceilings, soft lighting and textured walls.

Directing the new center is former CDA President Jack Broussard, DDS. Former CDA Speaker of the House Sig Abelson, DDS, is practice administrator. These individuals bring more than 60 years of combined practice management experience and leadership skills to the center.

"Our patients are in awe of the beauty of the center," Broussard said. "Our faculty, residents and staff are committed to becoming a valued asset to our community and to our university."

The center includes features such as digital imaging equipment, digital radiography, microscopes and intra-oral cameras. Current data on caries prevention and strategic design focused on patient relaxation are all touches expected to help attract quality faculty as well as increase student enrollment and enhance the equity of the downtown Los Angeles area.

"In just one year, the center has increased its practicing faculty from 13 to 27 individuals." Abelson said. "Some of the finest clinicians in the world have joined our faculty practitioners."

The center opened its doors in January 2003 and has successfully integrated into the Los Angeles health-care community.

Illustration: Matt Mullin

Managing the Amelogenesis Imperfecta Patient

A rare developmental abnormality of the tooth enamel, amelogenesis imperfecta (AI) patient occurs in about 1:4,000 to 1:14,000 people in the Western populace. Dental features associated with the condition range from pulpal calcification, taurodontism and root malformations, quantitative and qualitative enamel deficiencies, failed tooth eruption and impaction of permanent teeth, congenitally missing teeth, anterior and posterior open-bite occlusions, as well as progressive root and crown resorption.

In an article in *The International Journal of Prosthodontics*, managing AI patients can be complex. That is why authors suggest that those in the prosthodontic profession can have a major role in the rehabilitation of rare disorders.

Among the recommendations is that treatment of AI patients should begin with early diagnosis and intervention to prevent later restorative problems. The authors acknowledge some patients might not seek treatment until later when advanced tooth wear and the associated tooth sensitivity, functional and esthetic problems have already occurred, leading to numerous years of complex restorative treatments.

Authors noted that poor oral hygiene associated with gingivitis and gingival hyperplasia may be factors adversely affecting restoration management. Poor oral hygiene may stem from tooth hypersensitivity and the presence of an anterior open-bite associated with breathing through one's mouth.

When performing restorative work on AI patients, aspects to contemplate include loss of occlusal vertical dimension and degree of dentoalveolar compensation; size of the pulp chambers and amount of occlusal and interproximal tooth wear; number, color, form, sensitivity of the affected permanent teeth;

enamel thickness and degree of mineralization, and the ability of restorations to bond sufficiently to the affected enamel; as well as the strength of attachment of the enamel to dentin and dentin quality.

The article further notes that children and young teens can display the general features of AI, but may not be similar in young adults where caries and noticeable sensitivity may result from widespread exposed dentin in permanent teeth.

Tax Credit Available for Disabled Access

Dental practices, like all small commercial enterprises, are entitled to a nonrefundable disabled access federal income tax credit for expenses incurred in making a business accessible to the disabled, according to consultant Milt Zall in the January/February 2004 issue of Chicago Dental Society Review.

The credit is half the amount of eligible access expenses for a year that exceeds \$250 but under \$10,250. An eligible small business is one that claims the disabled access credit and during the preceding tax year had either gross receipts (minus allowances and returns) of \$1 million or less or no more than 30 full-time employees.

Qualified expenses include the cost of removing architectural, transportation or communication obstacles preventing disabled individuals from accessing or using a business.

Successfully Terminating the Dentist-Patient Relationship

Ending a dentist-patient relationship carries the same cautions about refusing treatment to a new patient. In either case, the dentist must be careful to avoid potential

legal claims, said Keith Kerns, Ohio Dental Association director of Legislative and Legal Services, in January's issue of ODA Today.

The dentist, in end-

ing the relationship, must not abandon the patient. If they do so, the dentist can be held liable for abandonment by their failure to give adequate notice to the patient and refusal to provide treatment proximately causes injury.

Kern recommended not terminating the relationship during the patient's course of treatment and giving them plenty of notice. For example, do not send a termination letter one week before the scheduled treatment. In the letter, the dentist also must offer to provide emergency care for a "reasonable period" such as 30 to 90 days following the

> notice of termination, and inform the patient they have the right to view or obtain a copy of dental records including impressions and Xrays. Additionally, the

dentist should offer to forward the documents, upon the patient's written request and authorization, to the new dentist.

It is helpful, Kern said, to recommend the patient contact the local dental society in obtaining a referral to another dentist. The letter should be sent via certified mail. Following these simple guidelines, Kerns said, can reduce the dentist's exposure to liability.

The dentist, in ending the relationship, must not abandon the patient.

Bridging the Billing Gap for Bridgework

A technique has been developed in Michigan that may help dentists meet their patients' request to bill part of a bridge in the last months of one year and for the remainder in January of the following year.

In the Kalamazoo Valley District Dental Society's *Gutta Percha Clarion*, Keith Konvalinka, DDS, suggested that in placing a

three-unit bridge instead of preparing both teeth, a dentist

might prep one and send it off. Rather than having the usual crown

made, the lab can create a bridge abutment with the female portion of an MS attachment. The dentist may then request the lab fill the slot with acrylic so in the interim it doesn't become a food trap. The dentist can cement it in, bill it as an abutment with precision attachment and be finished for the year.

At the beginning of the next year, the other abutment can be prepped. This time, an impression should be taken with attention to capturing the entire cavity of the female attachment by syringing impression material into the slot fully. Or, if the lab prefers, using an abutment, pontic and the male end of the MS attachment.

Insurance annual maximums often times do not cover the price of a full bridge. This leaves patients seeking to eliminate or reduce their portion of the cost. Dentists typically are forced to explain that bridgework has to be billed to insurance as one unit. By utilizing this technique, Konvalinka said, a dentist can successfully bill two halves of a bridge in two insurance cycles.

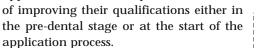
Pacific Awarded Recruiting Grant

The W.K. Kellogg Foundation and American Dental Education Association Access to Dental Careers grant of \$100,000 has been awarded to the University of the Pacific School of Dentistry to assist with the recruitment of under-represented minority and low-income students.

"This award is a great complement to the applicant recruitment, community education and curriculum enhancement aspects of Pacific's Pipeline program," said Paul Glassman, DDS, associate dean for information and educational technology and principle investigator for the Pipeline program and Access to Dental Careers grant.

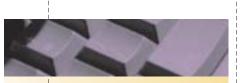
The award enhances Pacific's current \$1 million grant project, the California Initiative Dental Pipeline program, which in addition to recruiting under-represented and low-income students also strives to provide dental students and residents in community clinics with more experiences in helping underserved populations. Not only will the Access to Dental Careers grant make available low-cost loans to select students and enhance Pacific's recruiting activities including identifying and recruiting

applicants at colleges and universities with populations of pre-dental, underrepresented and lowincome students, it will provide counseling to applicants with the hope



Pacific is committed to addressing the shortage of dentists from underserved and low-income populations, a major issue facing California as well as throughout the U.S. By recruiting more students from these communities and helping them succeed will benefit the diverse areas within the state as well as across the country.

UNIVERSITY OF THE PACIFIC School of Dentistry



C.E. Credits Online

The University of Colorado School of Dentistry, in partnership with the Journal of the American Dental Association, has developed an online continuing education module.

The module, which will offer up to two CE credits each month, provides complete online testing, submission, grading and secure payment for the program. Members of ADA will receive a discounted rate of \$15 per submission. The cost for non-members is \$20 per submission.

For more information, visit: <www.ada.org/goto/jada>ww w.ada.org/goto/jada and click the hyperlink "JADA CE Program."

Ross Award Nominations Due by June 1

The deadline to nominate a dentist for their strides in periodontics, orthodontics, oral pathology, oral and maxillofacial surgery as well as other clinical research areas is June 1.

The Norton M. Ross Award for Excellence in Clinical Research recognizes those who have notably improved the diagnosis, treatment and/or prevention of craniofacial-oraldental diseases.

Last year's winner, periodontal researcher Robert Genco, DDS, PhD, won for his work on the link between oral disease and cardiovascular diseases.

Selection is based upon the scope of research completed with its impact on clinical dentistry, and the nominee's publications in refereed journals. The winning researcher receives a plague and \$5,000 during an ADA Board of Trustees dinner in August in Chicago.

Nominations must include a letter describing the nominee's accomplishments in the context of the award objectives and

the influence of the research on clinical dentistry. A curriculum vitae with a list of published articles must be included. Send the nomination to Marcia Greenberg, American Dental Association, 211 E. Chicago Ave., Chicago, Ill., 60611. For more information, call the ADA at (800) 621-8099, Ext. 2535.

explicitly describe

The Ross award is sponsored by the American Dental Association through the ADA Foundation, with support from Pfizer Consumer Healthcare. It is awarded in memory of Norton M. Ross, a dentist and pharmacologist who contributed significantly to oral medicine and dental clinical research.

Upcoming Meetings 2004

April 27-May 2	American Academy of Cosmetic Dentistry's 20th annual Scientific Session, Vancouver, British Columbia, www.aacd.com.
June 24-26	ADA 18th annual New Dentist Conference, San Diego, (312) 440-2779, www.ada.org/goto/newdentconf
Sept. 8-11	International Federation of Endodontic Association's sixth Endodontic World Congress, Brisbane, Queensland, Australia, www.ifea2004.im.com.au.
Sept. 10-12	CDA Fall Scientific Session, San Francisco, (866) CDA-MEMBER (232-6362).
Sept. 30-Oct. 3	ADA Annual Session, Orlando, Fla., (312) 440-2500.

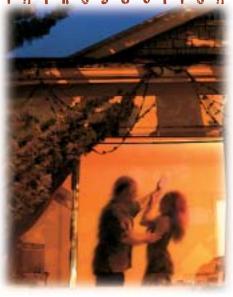
2005

April 6-9

Academy of Laser Dentistry 12th annual Conference and Exhibition, New Orleans, (954) 346-3776.

To have an event included on this list of nonprofit association meetings, please send the information to Upcoming Meetings, CDA Journal, P.O. Box 13749, Sacramento, CA 95853 or fax the information to (916) 554-5962.

INTRODUCTION



Making a Difference

Kathleen A. Shanel-Hogan, DDS, MA; Jon Roth, MROD, CAE; and Marianne Balin, MPH

city, every neighborhood, and every community. It is often a silent cycle of physical, emotional, verbal, and financial abuse that leaves its victims feeling trapped and helpless. Because 65 percent of all physical child abuse and 75 percent of all physical domestic violence results in injuries to the head, neck, and/or mouth, the dental professional is often the first person to render treatment to abuse victims as well as being their first line of defense. Even when victims of violence avoid seeking medical attention, they will keep routine and emergency treatment dental appointments. Dentists, registered dental hygienists, and registered dental assistants are designated by law as mandated reporters in California to report suspicions of abuse and neglect in patients. Dental professionals and allied personnel must report domestic violence physical assault cases in addition to suspected child abuse/neglect and elder abuse/neglect cases.

amily violence exists in every

The April and May issues of the *Journal of the California Dental Association* are dedicated to Family Violence Prevention. The April issue focused on child abuse/neglect, and elder and dependent adult abuse/neglect. The May

issue is focused on domestic and intimate partner violence, and violence against people with special needs. Articles address frequent questions the dental community has asked, such as:

"Why doesn't the abused person in domestic violence just leave the relationship?"

"Why should dental professionals get involved? What are some dentists' experiences?"

"What are the signs of attempted strangulation and why is that important for the dental office to know?"



Author / Kathleen A. Shanel-Hogan, DDS, MA, is a consultant, educator, facilitator and family violence prevention advocate. She works with the California Dental Association Foundation as a consultant and a mandated reporter trainer in all forms of family violence (child abuse/neglect, domestic violence, elder abuse/neglect). She is author of the Dental Professionals Against Violence Program, and testified on behalf of dentistry at the California Assembly Select Committee On Domestic Violence Hearing "Domestic Violence As A Public Health Issue." She participates on many California statewide committees on family violence prevention. Dr. Shanel-Hogan has experience in private practice and hospital dentistry with medically compromised patients. Jon R. Roth, MROD, CAE, is executive director

Jon R. Roth, MROD, CAE, is executive director of the California Dental Association Foundation.

Marianne Balin, MPH, directs programming and philanthropy focused on the prevention of domestic violence for the Blue Shield of California Foundation.

Involvement of dental professionals in the community effort to foster change in family violence can make an important difference.

"What can we see in our dental examinations?"

"How do I approach cultural differences in my practice regarding family violence?"

"What is screening for domestic/intimate partner violence and a safety plan? Why is it important?"

"How do I collaborate with law enforcement, family violence advocates, and the community?"

"How is the special needs patient population impacted and how does that affect my practice?"

"Is there funding for dental care for victims of crime in California?"

In 2001, the California Dental Association Foundation (CDA Foundation) was established to promote the total health of Californians through oral health disease prevention, risk assessment and treatment initiatives. As the charitable arm of the CDA, the Foundation desires to expand healthcare and other California mandated reporter groups' knowledge of abuse and neglect that involves clinical implications for the oral and maxillofacial structure. Through a strategic partnership with, and generous funding from Blue Shield of California Foundation and Dental Benefit Providers, the Dental Professionals Against Violence (DPAV) was created. This program is the next generation of PANDA and CDA Abuse Detection and Education Program present in California since 1994.

DPAV consists of both Train-the-Trainer and direct provider training programs to encourage and support dental professionals in a practical response to family violence and to designed to assist dental professionals and their teams in recognizing and responding to child

Forms to report abuse

Some copies of forms to report suspected abuse are included in this issue. These can be used as a "working draft" of the report form to assist the mandated reporter in collecting the information in an organized manner. It becomes much simpler to transfer information from the "working draft" to the formal report.

The actual child abuse forms are in NCR format. Please contact the California Department of Justice Bureau of Criminal Identification and Information, P.O. Box 90317, Sacramento, Calif., 94203-4170 to obtain actual forms.

Domestic Violence Form

http://www.ucdmc.ucdavis.edu/medtrng/domain/Suspect_Violent_Injury.pdf

Documentation Chart for Attempted Strangulation e-mail: gstrack@sandiego.gov

Dental Reimbursement

http://www.boc.ca.gov/VCApp.htm

abuse/neglect, intimate partner violence, and elder abuse/neglect. The goals are to raise the dental community's awareness of family violence using the most current information regarding patient risk assessment, clinical signs and symptoms, and dental professional's legal obligation to identify and report elder, child and intimate partner abuse. The program includes definitive action steps for dental professionals to use in their practices and communities.

DPAV also created an educational poster for the dental office that was included in the April *Journal* to place in the back office to assist the team in recognizing and responding to abuse and neglect in the dental practice. To obtain additional free copies and/or to learn more about what you and your organization can do to respond to family violence, call the CDA Foundation's Dental Professionals Against Violence coordinator at (916) 554-4921, ext. 8900.

Involvement of dental professionals in the community effort to foster change in family violence can make an important difference by increasing the awareness of how to detect abuse, especially oral abuse, and to join the community effort. Community capacity to prevent abuse and neglect depends on the communication and collaboration of the entire community. Dentistry is prepared and willing to be collaborative partners with other healthcare providers, agencies, institutions, and policy makers in addressing domestic violence and family violence as a healthcare issue. The effect will be to positively impact children and their families. The victims of abuse often speak to us in non-verbal language through signs and symptoms. We have the opportunity to become their voice. We can make a difference. Now is the time. Family violence is not just a social issue; it is a health issue that affects us all. CDA

SPECIAL NEEDS



The Extraordinary Yulnerability of People with Disabilities: Guidelines for Oral Health Professionals Paul Glassman, DDS, MA, MBA; Christine Miller, RDH, MHS, MA; Rick Ingraham, MS; and Emily Woolford, BA

ABSTRACT

In the last 40 years, there has been a dramatic shift in living arrangements for people with disabilities from large state institutions to community-based care. This shift has required communities to increase their clinical capacity including oral health care systems. Oral health professionals must be cognizant that the rate of abuse and neglect experienced by people with developmental disabilities and other special needs is at least four times the rate experienced by the general population. These trends have resulted in additional responsibility on community oral health professionals to provide oral health services for many people who formerly lived in state institutions including recognizing and reporting suspected abuse and neglect. Oral health professionals must prepare themselves to successfully carry out these professional responsibilities.

PURPOSE OF PAPER

There is a national trend to normalize and deinstitutionalize people with disabilities and support them in home-like community residential settings.¹ This has resulted in increasing numbers of individuals with special needs seeking oral health care in dental offices. Dental professionals need to be aware of considerations involved in treating this population. Among these is the extraordinary vulnerability of this population to abuse and neglect and the role of the dental professional in recognizing and reporting potential abuse and neglect. n the last 40 years, the national deinstitutionalization movement has resulted in a dramatic shift from placing people with developmental and other disabilities in

large state-operated institutions to moving people with special needs into community living arrangements. In many states there have been significant declines in the institutional population in this time period.^{2,3} In Florida, two of six Developmental Services Institutions (DSI); have been closed and the remaining four have been downsized by as much as 65 percent.¹ In California between 1992 and 2002, the population of people being served by the Department of Developmental Services (DDS) who were living in a State Developmental Center decreased by



Authors / Paul Glassman, DDS, MA, MBA, is a professor of dental practice and community services, associate dean for information and educational technology, director of the Advanced Education in General Dentistry Program, and co-director of the Center for Oral

Health for People With Special Needs at the University of the Pacific School of Dentistry.

Christine Ernst Miller, RDH, MHS, MA, is an associate professor of Dental Practice and Community Services, director of Community Programs, and co-director of the Center for Oral Health for People with Special Needs at the University of the Pacific School of Dentistry.

Rick Ingraham, MS, is a manager of the Children and Family Services Branch of the California Department of Developmental Services.

Emily Woolford, BA, is a community programs specialist with the California Department of Developmental Services.

SPECIAL NEEDS



45.8 percent while the population being served by DDS who lived in the community increased by 78.2 percent.⁴ As of October 2003, 70.3 percent of people with developmental disabilities served by DDS lived in their own home or with a parent or family member; 14.6 percent in a community care setting (group home); 8.5 percent in independent supported living arrangements; 4.7 percent in an intermediate care facility or skilled nursing facility, and only 1.9 percent in a state developmental center.⁴

There are many reasons for this remarkable demographic shift, including parent advocacy for more community-based programs, recognition of the civil rights of people with disabilities to live and participate in society, legislative mandates to downsize institutions, and the establishment of government programs to support community living arrangements.5 The result of deinstitutionalization, however, is that people with developmental disabilities and other special needs have become increasingly dependent on communitybased resources for social services and medical and oral health care. In many cases these resources are not available.^{6,7,8} In fact, people with special needs, particularly those with developmental disabilities, have more dental disease, more missing teeth, and more difficulty obtaining dental care than other segments of the population.⁹⁻¹⁴

The Surgeon General's Report on Oral Health points out that populations with mental retardation or other developmental disabilities have significantly higher rates of poor oral hygiene and an increased need for periodontal treatment than the general population.⁹ In addition, people with disabilities have a higher rate of dental caries than the general population, and almost two thirds of community-based residential facilities report that inadequate access to dental care is a significant issue.¹⁵⁻¹⁸ Untreated dental disease has been found in at least a quarter of those with cerebral palsy, as well as 30 percent of those with head injuries, and 17 percent of those with hearing impairment.¹⁰ A study commissioned by the Special Olympics concluded that the oral health of individuals with mental retardation is poorer than that of their peers without mental retardation. Individuals with

People with developmental disabilities experience abuse at least four times the rate experienced in the general population and possibly as much as ten times.

mental retardation have more untreated caries and a higher prevalence of gingivitis and other periodontal diseases than those in the general population.¹⁹

Availability of dental providers trained to serve special needs populations and extremely limited third-party support for the delivery of complex services further complicate the issues entailed in addressing the oral health needs of this population.⁹ There is even congressional testimony where the opinion has been expressed the health care system in the United States practices active discrimination against people with disabilities for no other reason than the fact they have a disability that makes the health care professional uncomfortable.²⁰

Many of the factors that contribute to increased dependence on scarce

community resources for special needs populations, such as an increased incidence of oral disease and difficulty accessing oral health services, also contribute to an increased vulnerability to abuse and neglect of these individuals. Oral health professionals can play an important role in providing oral health care for special populations and in recognizing signs of abuse and neglect.

Abuse and Neglect in People with Special Needs

There is extensive literature that demonstrates that people with developmental disabilities experience abuse at least four times the rate experienced in the general population and possibly as much as ten times.^{21,22} There is also a very high probability of repeat victimization prior to the abuse being reported or investigated. Further, the perpetrator is usually someone well known and trusted by the victim and his or her caregivers.^{21,23-29} This literature indicates that:

■ There are 5 million crimes against people with developmental disabilities each year in the U.S. compared with 8,000 hate crimes, 1 million incidents of elder abuse, and 1 million incidents of spousal abuse.

■ More than 70 percent of women with developmental disabilities are sexually assaulted in their lifetime.

■ Thirty-nine percent to 68 percent of girls and 16 percent to 30 percent of boys with intellectual disabilities will be sexually abused before age of 18.

■ The rate of robbery against persons with intellectual disabilities is 12.8 times higher than against the general population.

■ Offenders are often caregivers providing services related to the disability.

■ Offenders often seek out persons with disabilities because they are considered to be vulnerable and unable to seek help or report the crime.

■ Forty-four percent of violent crime in the general population is

reported nationally compared with 4.3 percent of violent crime reported against people with disabilities.

There are many factors that contribute to the vulnerability of persons with developmental disabilities. These include:

■ Their physical and mental impairments are apparent and thus perceived as "easy targets" who are unable to defend themselves.

■ Their multiple service needs require them to access many different service delivery systems and thus expose them to many different types of providers.

■ Their limited problem-solving capacity leaves them vulnerable to persuasion by others and less cognizant of warning signs of dangerous persons or places.

■ Training on safety and sexuality is often lacking.

■ They often believe that if they report abuse, no one will believe them.

■ They are often segregated and very dependent on their caregivers.

■ Residential care providers often hire unskilled care staff at minimum wage and experience a high attrition rate.

People with Disabilities and the Dental Office Environment

Oral health professionals can be in a better position to provide dental treatment for people with special needs and to recognize signs of abuse or neglect if they consider some of the challenges the dental office environment can present. The dental office can be perceived quite differently compared to the physician's office, particularly for a patient with developmental disabilities. When seeking medical care, the patient is often much more aware of his symptoms and the need for treatment. Except for cases of dental pain, even persons needing significant restorative work may not experience limitations in their daily functioning. Conversely, persons accessing medical care typically present with specific injuries or illness-related symptoms. A person with cognitive limitations may thus be confused or reluctant to agree to dental care.

Second, the array of equipment immediately present for even a dental exam can be foreboding and confusing. Conversely, a medical exam room is more simply furnished with the exami-

Ensure that a caregiver who knows the patient and their current health information and who the patient trusts will be accompanying the patient.

nation table, blood pressure apparatus, and a few containers of swabs, tongue depressors, etc.

Third, patients sitting in the dental reception room are often cognizant of the distinctive shrill sounds of dental "drills" and polishing equipment. Fourth, patients in dental offices are typically asked to assume a much more vulnerable position than patients in medical offices who are asked to sit on the exam table. Finally, the medical exam typically begins with some mildly invasive procedures (blood pressure, temperature, stethoscope, etc.) compared to the course of the oral examination and treatment. Procedures in the mouth can be perceived as very invasive even if they are not painful.

There are a number of strategies that can be employed to increase the likelihood of having a successful dental visit

with a patient with special needs. It is helpful for dental professionals to recognize that persons with developmental or other disabilities have a dramatically higher incidence of abuse; the dental office can be a strange and confusing place; the patient is asked to assume a physical position that is very vulnerable; prior dental treatments themselves may have involved pain or trauma, particularly if oral health had been neglected for many years; the cognitive processing of many persons with developmental disabilities in particular, varies from less sophisticated to significantly impaired; and caregiver follow through to maintain oral health may be less than optimal. Given these realities, it is important to prepare for the dental visit.

Pre-visit strategies that individuals in the dental office can follow include gathering information about previous dental care. It is important to understand not only what was done, but how the care was delivered and which techniques helped to make the treatment go smoothly and which did not. Some people with developmental disabilities may have received their oral healthcare under general anesthesia in the past, particularly if they have a long history of institutionalization. In considering the best approach to ensure success, the practitioner must take into account any previous trauma or pain history associated with oral health care. The pre-visit information that is obtained should also address whether pre-visit medication (e.g. sedative) has been routinely given in the past. Lastly, but perhaps most importantly, ensure that a caregiver who knows the patient and their current health information and who the patient trusts will be accompanying the patient and be available during the visit.

An excellent technique that also has proven successful to prepare and help to "de-sensitize" anxious patients has been the pre-visit binder. This binder is a collection of photos of the outside of the

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office building, reception desk, waiting room, exam/treatment rooms (including the exam light as the primary object in the field of vision during treatment), staff likely to be encountered (both with and without masks), particular cleaning instruments likely to be used, and any "freebie" packs to be given and the end of the visit. An office would be well advised to keep several of these binders available for "check-out" several days prior to the visit. The primary caregiver should review the binder with the patient at least daily for three to four days immediately prior to the visit.

Pre-visit preparation can also include gathering information about the individual's particular medical, psychological, or social situation. There is an excellent Web-based resource available for information about developmental disabilities called the *Developmental Disabilities Digest*. It is a continually updated summary of the latest research on the 50 most common diagnoses and syndromes of developmental disabilities.³⁰

During the dental visit, there are also some strategies to ensure success. Given the limited cognitive and perceptual difficulties experienced by some persons with disabilities, a practitioner should be prepared to make some minor but important adjustments in interacting with the patient. First, have the trusted caregiver/parent accompany the patient. This person can continue to reassure the patient during the dental procedures. Second, err on the side of speaking too simply and too slowly. Third, the closer you are to the patient, the more slowly you should move. You will recognize the importance of this strategy especially for those patients with histories of abuse or even bullying at their day programs or workshops. Fourth, display and explain the instruments, as you are about to use them. If the pre-visit binder was done correctly and utilized, there should be no stressful surprises for the patient.

If the techniques described above are combined with a friendly and caring demeanor and a willingness to be flexible about routines normally followed in the dental office, providing treatment for people with special needs can be very rewarding. The rewards include the fact that the treatment experience may very well constitute a life-altering event for the patient. Given the myriad of chronic medical and functional difficul-

The rewards include the fact that the treatment experience may very well constitute a life-altering event for the patient.

ties these patients experience, oral health is too often overlooked or less of a priority. Patients have been literally rescued from locked institutional care and returned to their family homes because someone recognized that behavior problems were resulting from dental pain. Chronic medical conditions have been resolved because remediation of oral cavity issues allowed the patient to eat and receive adequate nutrition. Simply stated, you will have the opportunity to turn around someone's life.

Some patients will present with unparalleled clinical complexity. These treatment opportunities can provide the oral health professional with fascinating clinical experiences reminding you why you became a clinician. You will also enjoy the camaraderie of being one of several clinicians on a multi-disciplinary treatment team focusing on the health and well-being of the patient. You will enjoy the team mobilizing resources to follow through on your recommendations. In addition, you may have the opportunity to reaffirm the critical role of the oral health practitioner in peoples' general health and wellbeing. Speech therapists, occupational therapists, nutritionists, the primary care physician, psychologists, and social workers will all be waiting for your essential input before proceeding with their course of treatment to improve the quality of life for the patient.

Finally, you will receive unequaled gratitude on the part of families, caregivers, and social workers. The appreciation expressed by families of patients with special needs is often more profound than with any other treatment population. Just as life has been a terrific struggle for persons with disabilities, their families and caregivers have been alongside them in this effort to live as full a life as possible given their disabilities. Family members have approached many clinicians working with this population with tears in their eyes thanking them profusely for improving the quality of their lives. Other measures of gratitude have included letters to the governor and other elected officials, recognition awards from advocacy groups, and peer recognition awards from professional organizations.

Recognizing Signs of Abuse or Neglect in People with Special Needs

The oral health provider who has taken the time to incorporate people with special needs in their practice may observe signs of abuse or neglect. Clinicians must be alert to unexplained or unusual bruising, any burns or fractures or significant weight loss and other possible physical symptoms of abuse or neglect. Dental practitioners are in a unique position to detect facial injuries consistent with abuse including



Figure 1. Oral neglect may indicate general neglect or abuse.

black eyes, bloody or swollen lips, and broken jaw or nose. Dentists may observe a persistent reluctance to remain seated in a standard position in the dental chair (possible reaction to bruises or fractures) or even a vague verbal reference from the patient (**Figures 1 and 2**).

Dental practitioners must also be alert to caregiver behavior for signs of abuse of patients. Note how the patient presents generally. Is the patient dirty or unkempt? Are the clothes in good condition and well fitting? When practitioners observe caregivers relying on physical coercion or threats in a public venue such as a dental office, one must wonder what transpires when no one is observing. One should query further if the caregiver characterizes the patient as "bad" or "evil" or uses other global negative terms or harshly criticizes the patient. Some caregivers who are abusing those entrusted to their care may make offhand remarks about desires to harm the patient or actually mention harsh discipline practices such as belts, sticks or other objects.

Patient behavioral indicators are less definite. Individuals commonly display a wide range of behavior with regard to routine behavior. This is even more true for reactions to high stress circumstances such as abuse and neglect. However, there are situations worth investigating further. Abuse may be suspected when the patient appears anx-



Figure 2. Oral trauma, such as this broken tooth, may be a sign of abuse.

ious or nervous, or readily flinches or recoils when approached by others. Or, the patient may display extreme muscle tenseness while undergoing specific dental procedures. The key distinction here is that with dental phobia, one would expect pervasive tenseness, often from when first entering the office. We would expect tenseness resulting from fear of further abuse will be most manifest when practitioners are in specific positions (e.g. directly over the patient). Further, when the patient demonstrates extreme timidity or appears overly compliant, one may wonder if this behavior is fear driven.

Reporting Abuse or Neglect of Dependent Adults

There are federal and state laws that specifically address the definition and prohibition of abuse and neglect of elders and dependent adults and requirements for reporting. A listing of these laws can be found on the Web site of the Department of Aging, Long Term Care Ombudsman Program.³¹ Among these is Section 368 of the California Penal Code which defines "dependent adult" as "any person who is between the ages of 18 and 64, who has physical or mental limitations which restrict his or her ability to carry out normal activities or to protect his or her rights, including, but not limited to, persons who have physical or developmental disabilities or whose physical or mental abilities have diminished because of age." Dependent adults are also defined as "any person between the ages of 18 and 64 who is admitted as an inpatient to a 24-hour health facility." In addition, "caregiver" is defined as "any person who has the care, custody, or control of, or who stands in a position of trust with, an elder or a dependent adult."³²

In California law, abuse of dependent adults is defined as either physical abuse, neglect, financial abuse, abandonment, isolation, abduction, or other treatment with resulting physical harm or pain or mental suffering or the deprivation by a care custodian of goods or services that are necessary to avoid physical harm or mental suffering.33 Neglect is defined as "the negligent failure of any person having the care or custody of an elder or a dependent adult to exercise that degree of care that a reasonable person in a like position would exercise or the negligent failure of an elder or dependent adult to exercise that degree of self care that a reasonable person in a like position would exercise." Neglect is considered to include, but not be limited to failure to assist in personal hygiene, or in the provision of food, clothing, or shelter; failure to provide medical care for physical and mental health needs; failure to protect from health and safety hazards; failure to prevent malnutrition or dehydration; and failure of an elder or dependent adult to satisfy the needs described above for himself or herself as a result of poor cognitive functioning, mental limitation, substance abuse, or chronic poor health.³⁴

Oral health professionals can play a role in detecting and reporting signs of possible abuse or neglect in their dependent adult patients. In fact, as mandated reporters, oral health professionals are required to do so. Mandated reporters are those groups specifically identified in California law as required to report

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suspected abuse or neglect. Licensed dental professionals are among this group and can be found guilty of a crime for not reporting.³⁵ This law is specific about the reporting requirements. It says that "any mandated reporter who, in his or her professional capacity, or within the scope of his or her employment, has observed or has knowledge of an incident that reasonably appears to be physical abuse, abandonment, abduction, isolation, financial abuse, or neglect, or is told by an elder or dependent adult that he or she has experienced behavior, including an act or omission, constituting physical abuse, abandonment, abduction, isolation, financial abuse, or neglect, or reasonably suspects that abuse, shall report the known or suspected instance of abuse by telephone immediately or as soon as practicably possible, and by written report sent within two working days." The California Department of Social Services form for filing a written report can be downloaded from the Web.36

Oral health professionals who suspect abuse or neglect in a dependent adult are required to report these suspicions to different agencies depending on where the abuse or neglect occurred. The California Attorney General's Office launched a "SafeState" Campaign in April 2003.37 The campaign features a statewide hotline, (888) 436-3600, for reporting of suspected cases of elder or dependent adult abuse. The hotline will directly connect callers wishing to report suspected abuse to the responsible agency including their local Adult Protective Services Agency or the Long-Term Care Ombudsman crisis line (Figure 3).

As indicated earlier in this article, few dependent adults with developmental disabilities live in long-term institutional care facilities. However, if a dental professional suspects abuse or neglect for someone in a long-term care facility, they should report this to the local long-term care ombudsman. Information about the state's ombudsman program can be found on the California Department of Aging Web site.³⁸ There is an Office of the State Long-Term Care Ombudsman (OSLT-CO) that develops policy and provides oversight to 35 counties' Long-Term Care Ombudsman Programs. The state also maintains a 24-hour, seven-day-aweek crisis line at (800) 231-4024 to receive complaints from residents. There is also a listing of county Long-Term Care Ombudsman Program contacts available on the Department of Aging Web site.³⁹ In an emergency, report suspected abuse or neglect to local law enforcement agencies using the 911 system.

Another state agency concerned with abuse of dependent adults is the Bureau of Medi-Cal Fraud and Elder Abuse in the Office of the Attorney General. This agency is concerned with attempts to defraud California's Medi-Cal program, including health care providers and persons involved in the program's administration. They are also concerned with abuse and neglect of patients in Medi-Cal-funded facilities, such as nursing homes, developmental treatment facilities, and hospitals. They can be contacted at the state Attorney General's Bureau of Medi-Cal Fraud and Elder Abuse toll-free hotline at (800)722-0432.40

As indicated earlier in this article, the vast majority of dependent adults with developmental and other disabilities live in community care facilities, independent or supportive living arrangements, or in family homes. Suspected abuse or neglect in these individuals should be reported to the local Adult Protective Services (APS) agency or local law enforcement. The California Department of Social Services is responsible for the various counties' Adult Protective Services Program. These agencies provide assistance to elderly and dependent adults who are functionally impaired,



Figure 3. Poster from the California Attorney General's SafeState Campaign. *Used with permission by the California Attorney General's Office.*

unable to meet their own needs, and who are victims of abuse, neglect, or exploitation. The role of the county adult protective services agencies is to investigate reports of abuse of elderly and dependent adults who are living in the community. They provide or coordinate support services, such as counseling, money management, conservatorship, and advocacy. They also provide information and education to other agencies and the public about reporting requirements and other responsibilities under the elder and dependent adult abuse reporting laws.⁴¹ There is a county contact list available on the APS Web site⁴² (Table 1).

Report Follow Up

Confidentiality for the reporter is protected by law. You will provide the name of the person, the current location of the person, and the nature and extent of the suspected abuse or neglect. The phone call must be followed up within 36 hours by a written report to the protective services agency. After the report, the county's social services agency may

Table 1

Contact List

Attorney General's Elder and Dependent Abuse Hotline

Referral to Ombudsman or Adult Protective Services: (888) 436-3600

Reporting Suspected Abuse in Long-Term Care Facilities

- State Ombudsman 24-hour, seven-days-a-week crisis line (800) 231-4024
- List of Local County Ombudsman Programs: http://www.aging.state.ca.us/html/programs/ombudsman_contacts.html
- California Attorney General's Bureau of Medi-Cal Fraud and Elder Abuse hotline (800) 722-0432
- Local Law Enforcement

Reporting Suspected Abuse outside of Long-Term Care Facilities

- Adult Protective Services County Contact List with 24-hour, seven-days-a-week hotline number: http://www.dss.cahwnet.gov/pdf/apscolist.pdf
- Local Law Enforcement

or may not investigate. Indeed, budget constraints results in varied response from county to county. Some counties have been criticized for investigating only if there is a "gaping wound." Typically, this "triage" approach is the result of budget constraints. Generally, however, the county social service agency will investigate or at least document the report. This becomes valuable data if there are a number of these reports over time regarding a particular individual caregiver.

If your concerns fall short of "reasonable suspicion" of abuse or neglect, yet you are concerned that the person is receiving less than optimal care you have several options. The first would be to contact the patient's service coordinator at the local regional center if they are registered with the regional center system and discuss your observations with him/her. Another option exists in the case of a major wound or bruise but not a reasonable suspicion of abuse or neglect. You may complete a "Special Incident Report" for your local regional center. This documents your observation and assists the regional center in establishing a "paper trail" should other team members make additional observations.

Conclusion

People with special needs including those with developmental and other disabilities are living and seeking dental care in the community in greater numbers than ever before. Dental professionals can prepare themselves to provide oral health services for these individuals and enhance their practices and professional lives in the process. In the course of providing dental care, oral health professionals may encounter signs of abuse or neglect which they are mandated to report. Knowing what, where and how to report suspected abuse and neglect is essential information for every dental practice. CDA

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DOMESTIC VIOLENCE

Culturally Competent Responses for Identifying and Responding to **Domestic Violence in Dental Care** Settings

Vibhuti Mehra on behalf of the Family Violence Prevention Fund

ABSTRACT

Dental care providers can play an important role in identifying and preventing intimate partner violence. Many victims of domestic violence interact with dental care providers, including dentists, dental hygienists, and dental assistants, thus placing dental professionals in a unique position to screen for early identification and even primary prevention of abuse. An effective and successful response to intimate partner violence in a dental care setting involves creating a safe and culturally competent environment for screening and disclosure, giving supportive messages to victims, educating patients about abuse and connection to health, offering strategies to promote safety, and informing clients about relevant community resources.

PURPOSE OF PAPER

Domestic violence (DV) or intimate partner violence (IPV) is a health issue of epidemic proportions in the United States. It is estimated that between 20 and 30 percent of women and 7.5 percent of men in the United States have been physically and/or sexually abused by an intimate partner at some point in their lives.^{1,2,3} During the past 15 years, there has been a growing recognition among health care professionals that DV or IPV is a highly prevalent public health problem with devastating effects on individuals, families, and communities.

he impact of abuse and neglect can manifest throughout the lifespan. The immediate health consequences of domestic violence can be severe and

sometimes fatal. In addition to injuries sustained by victims during violent episodes, physical and psychological abuse is linked to a number of adverse medical health effects. However, new research shows that a history of exposure to IPV is a significant risk factor for many chronic health problems and health risk behaviors. Women who have been victimized by an intimate partner and children raised in violent households are more likely to experience a wide array of physical and mental health conditions including frequent headaches, gastrointestinal problems, depression, anxiety, sleep problems,

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and Post Traumatic Stress Disorder (PTSD).⁴⁻⁷

For more than a decade, the Family Violence Prevention Fund (FPVF) through its publications, practices, educational programs and outreach efforts, has promoted routine screening for domestic violence and effective responses to victims in health care settings. Attention to the issue of intimate partner violence began in the emergency room and primary care settings. More recently, efforts have expanded to reach out to specialty settings including physical therapy, orthopedics, and dentistry.

This article will emphasize the importance of routine screening for IPV in the oral/dental health care setting as an effective intervention and prevention strategy while underscoring the need to provide culturally competent services to victims of abuse and neglect. Recommended strategies and steps that can help dental care professionals provide an improved level of culturally competent care to victims of domestic violence, while identifying and preventing abuse also are included.

Health Care Response to Domestic Violence

A host of professional health care organizations have promulgated policy statements, position papers, guidelines and monographs about this important health issue describing the impact of IPV on patients and suggesting strategies for screening and identification of abuse. These organizations include the American Academy of Family Physicians, American Academy of Pediatrics, American College of Obstetricians and Gynecologists, American Medical Association, American Nurses Association, American Psychological Association, Joint Commission on the Accreditation of Health Care Organizations, and the Institute of Medicine, as well as others.

The position statements represent

important steps in raising awareness about IPV in health care settings. In an effort to better guide health care providers about how to carry out screening and intervention, the FVPF in collaboration with an expert advisory committee, published the *National Consensus Guidelines on Identifying and Responding* to Domestic Violence Victimization in Health Care Settings. The guidelines offer health care providers, in all settings, a

Dental health care providers routinely assess the head and neck areas of their patients and hence can identify whether their patient is being abused and intervene.

concise protocol as well as justification for providing appropriate health and safety assessment, intervention, documentation, and referral to victims of domestic violence. The guidelines also cover the issue of culturally competent responses.

Routine screening for IPV, whether or not symptoms are immediately apparent, increases opportunities for both identification and effective interventions, validates IPV as a central and legitimate health care issue, and enables providers to assist both victims and their children. Asking about IPV and having resource and referral materials in health settings also sends a prevention message that IPV is unacceptable, has serious health consequences, and provides the patient with important community referral information and resources.

Identifying and Responding to Domestic Violence in the Dental Care Setting

Many victims of domestic violence interact with dental care providers, including dentists, dental hygienists, and dental assistants, thus placing dental professionals in a unique position to screen for early identification and even primary prevention of abuse. According to a 1998 national survey, 9.2 percent of the women who sought health care for physical assault by an intimate partner saw a dentist.⁸ Studies have also shown that most victims of intimate partner violence are injured in the head and neck areas; the clinical indicators are present in lacerations, bruises and fractures. Dental health care providers routinely assess the head and neck areas of their patients and hence can identify whether their patient is being abused and intervene.9,10

Although the American Dental Association enacted a policy in 1996 to increase efforts to educate dental professionals on identifying abuse and neglect of adults, much remains to be done to improve screening and intervention for domestic violence in the dental care setting. Dentists and other dental care providers cite various barriers for the lack of response including lack of training, cultural competency, and access to resources.^{11,12} However, these barriers can be overcome with appropriate training and a concerted effort on the part of all dental professionals to develop methods, tools, guidelines, and resources that help create an environment supporting victims of domestic violence, fosters their safety and well-being, and facilitates their empowerment.

Understanding the Dynamics of Domestic Violence

FVPF defines domestic violence or intimate partner violence as a pattern of assaultive and coercive behaviors that may include inflicted physical injury, psychological abuse, sexual assault, progressive social isolation, stalking, deprivation, intimidation and threats. These behaviors are perpetrated by someone who is, was, or wishes to be involved in an intimate or dating relationship with an adult or adolescent, and are aimed at establishing control by one partner over the other.

Research indicates that a vast majority of victims of abuse in intimate relationships are women whose partners are men. Heterosexual women are five to eight times more likely than heterosexual men to be victimized by an intimate partner.13 An October 2001 report of the U.S. Bureau of Justice Statistics on intimate partner violence found that 85 percent of IPV victims are women. Most of the studies conducted to date have measured the prevalence and impact of abuse on women and children. However, it is important to note that some victims of IPV are men in heterosexual relationships and that IPV is also prevalent in lesbian, gay, bisexual, and transgender relationships.

Domestic violence serves the purpose of establishing power and control through various tactics. This establishment of an abusive power and control is fundamentally what distinguishes DV or IPV perpetrators from victims. Victims of domestic violence may face several barriers that can impact their decision to disclose abuse to a health care provider. Some of the barriers faced by domestic violence victims include:

■ Feeling disempowered and low self-esteem

Isolation from friends and family
 Feeling of being trapped in the abusive situation

■ Shame, embarrassment, guilt about the violence or acceptance of it as the victim's fault and responsibility

Religious or familial pressure

■ Fear of retaliation from the abuser and using silence as a survival

measure to ensure safety for themselves as well as their children, family or friends

■ Emotional, financial dependence or even physically dependence (e.g. disabled person) on the abuser

- Language
- Immigration status

■ Social or institutional oppression, e.g. racism, classism, ageism, sexism, homophobia, xenophobia

To achieve cultural competency, practitioners need to be aware of, and avoid, making assumptions about patients.

Domestic violence affects people regardless of race, ethnicity, class, sexual and gender identity, religious affiliation, age, income and education levels, immigration status and ability. Because of the sensitive nature of abuse, providing culturally relevant care is critical when working with victims of abuse.

Providing Culturally Competent Care

Culture in this context refers to various shared experiences or other commonalities that groups of individuals have developed based on race, ethnicity, sexuality, class, disability, status, religion, age, immigration, and other axes of identification in relation to changing social and political contexts.¹⁴ The contemporary concept of culture, its norms and traditions, recognizes that "culture" is multifaceted, often changing and contains contradictory elements.

Cultural competence is the stan-

dard terminology currently used in health care. It refers to the process by which the provider combines general knowledge about various groups with specific information provided by the victim about his/her culture, incorporates an awareness of one's biases, and approaches the definition of culture with a critical eye and open mind. Becoming "culturally competent" with victims of domestic violence is a challenge. To achieve cultural competency, practitioners need to be aware of, and avoid, making assumptions about patients. Health care providers should neither minimize nor overplay differences between diverse groups of people. For example, if a patient belongs to the upper class, a dental care provider should not assume that she/he cannot be a victim of domestic violence. Similarly, if an Asian woman discloses herself as a victim of domestic violence, the dental care provider cannot simply fault her cultural upbringing for the violence.

A common mistake is to accept the traditional concept of culture. As a result, the bias has been to look only for differences while ignoring commonalities. It should be remembered that while domestic violence may impact communities differently, both women and men have challenged and resisted many norms and standards within their societies, redefining the very notion of "culture." This resistance cuts across demographic boundaries.

Exploring options with patients has to be done with victim safety at the forefront. Victims are constantly balancing safety and risk. If an option is unsafe at a particular point of time, it may not be later. The viability of an option depends largely on sources of support both within the victim's community(ies) and that which is made available by providers. A health care intervention is likely to work only if the provider gently negotiates without

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infringing upon the victim's right to dignity or privacy, letting the victim know of her/his options that are available at the time. Keep in mind that options have to make sense from the victim's frame of reference.

In order to offer care that is accessible and tailored to each patient, health care providers must consider the multiple issues victims may deal with simultaneously (including language barriers, limited resources, homophobia, acculturation, accessibility issues and racism) and recognize that each patient who is an IPV victim will experience both the abuse and the health system in culturally specific ways. Disparities in access to and quality of health care may also impact providers' abilities to help abused patients. For example, women of racial and ethnic minority groups are more likely than white women to experience difficulty communicating with their physicians and often feel they are treated disrespectfully in the health care setting.¹⁵ English-speaking Latinos, Asians and African American patients report not fully understanding their physicians and feeling like their physicians were not listening to them.¹⁶ People with cognitive or communication disabilities may be dependent on an abusive partner and thus at especially high risk.

Health care providers also enter patient encounters with their own cultural experiences and perspectives unique from those of the victim. Often, providers assume they know the victim's beliefs or experiences based on previous interactions with the victim's community(ies). This knowledge may be useful at times. However, in a clinical encounter it may also create difficulties leading to incorrect assumptions about the victims. This is why it is important for the provider be fully aware of bias and the source of knowledge about any community. It is easy to use the incorrect assumptions to impose the provider's values on others.

For a successful health care interaction within diverse client populations, the provider needs to effectively communicate with the patient, be aware of his/her personal assumptions, ask questions in a culturally sensitive way, and provide relevant interventions. Eliciting specific information about the patient's beliefs and experience

Screening and intervention for domestic violence does not mean attempting to "fix" the abuse or for the patient to leave the abuser.

with abuse, sharing general information about IPV relevant to that experience and providing culturally accessible resources in the community, improves the quality of care for victims of violence. At the same time, it is very important for health care providers to bear in mind that screening and intervention for domestic violence does not mean attempting to "fix" the abuse or for the patient to leave the abuser.

Effective Screening Strategies

It is recommended that dental care providers screen all adolescent and adult patients for domestic violence regardless of cultural background. Screening should include men when they present with clinical indicators in order to reach out to male victims who are in same-sex, bisexual and heterosexual relationships.

Sensitive screening questions for all

patients can facilitate discussion and help dental care providers offer appropriate and effective interventions. It is important to adapt your screening questions and approach to each individual patient. For culturally competent screening:

■ Avoid making assumptions based on the person's appearance. Do not assume the victim's economic, educational and immigration status, her/his sexuality, or the community(ies) she/he belongs to based on name, clothes, or accent.

■ Ask about support systems available in each of the victim's communities for victims who identify with multiple communities.

■ Listen to patients; pay attention to words that are used in different cultural settings and integrate those into screening questions. For example, for coastal Inuit groups, "acting funny" describes IPV, in some Latino communities "disrespects you" indicates IPV.

■ Use the term "partner" or "any other family member" or "anyone close to you" when you interview regarding domestic violence.

■ Focusing on actions and behaviors as opposed to culturally specific terminology can also help. Some groups may be more willing to discuss abuse if you use general questions.

■ Be aware of verbal and non-verbal cultural cues such as eye contact or not, patterns of silence, spacing and active listening during the interview.

■ Be aware that for lesbian and gay victims, disclosing abuse may be their first experience coming out.

■ When screening victims from communities of color and immigrant communities, be aware victims may have legitimate concerns and fears about law enforcement and/or immigration authorities.

■ Address victim's concerns about confidentiality; inform the patient of any mandatory reporting requirements

Table 1

Sample Screening Questions:

- Begin by being indirect: "If a family member or friend was hurt or threatened by a partner, do you know of resources that could help them?"
- Use your patient's language: "Does your boyfriend disrespect you?"
- Be culturally specific: "Abuse is widespread and can happen even in lesbian relationships. Did your partner ever try to hurt you?"
- Focus on behaviors: "Has your partner ever hit, shoved, or threatened you?"
- Provide the victim with an opportunity to talk with someone else from their community if they are uncomfortable with you: "If you are not comfortable with me, let us figure out whom you can talk to about this situation."

or other limits to patient/provider confidentiality.

■ Ask whether the victim would prefer to use an interpreter if English is not the victim's first language. Do not use a partner, children or any accompanying person to interpret.

■ Be aware of your own assumptions about family. Victims belong to and are part of families, extended families and communities. As a result, the victim's definition of family might be different from that of the provider (**Table 1**).

Health and Safety Assessment

Assessment can enable dental care providers create a supportive environment in which the patient can discuss the abuse. Assessment also allows providers to gather information about the potential danger/lethality of the abuse as well as health problems associated with the abuse, and consider the immediate and long-term health and safety needs for the patient in order to develop and implement a response. Dental care providers should ask the victim about the community's response to marriage, divorce, domestic violence, health and healing, and find out how the victim responds to cultural expectations, allowing the victim to define her/his culture and community.

As in all other domestic violence interventions, it is important to provide unconditional support for the choices that the victim makes, even if you disagree.

Intervention with Victims of DV/IPV

A culturally competent intervention respects a victim's right to determine the course of her/his actions. This means acknowledging a victim may have multiple pressures, including community expectations that prevent the acceptance of safety options. Though the provider's goal is to ensure victim safety, it is important to remember a victim will accept an option only when it makes sense from her/his frame of reference. Validating the victim's experiences, and providing unconditional support is important.

Victims of domestic violence often

experience a loss of control over their lives. As a result, many victims may feel they are placing themselves in greater jeopardy by disclosing abuse. To help restore a sense of control in the victims' lives, it is suggested to:

■ Discuss with the patient what steps she/he has taken in the past to make her/him safer. Discuss the development of a safety plan with her/him, taking into account the culturally specific needs of the patient.

■ Explain all dental/health care procedures in a simple, easy-to-understand manner for victims whose primary language is not English, and for victims with low-literacy levels.

■ Inform the victim about her/his rights, and resources and referrals that serve specific community(ies) the victim identifies with.

■ Gather information and knowledge about community resources, including domestic violence advocates and culturally specific agencies who might work with you and the victim.

■ Save questions regarding sexual identity and immigration status for later in the interview. Asking too soon can create fear amongst victims who do not want to be reported, or who have concerns that they will receive less care because of their status.

■ Convey an appreciation to the patient for disclosing and encourage her/him to schedule follow-up visits.

Finally, as in all other domestic violence interventions, it is important to provide unconditional support for the choices that the victim makes, even if you disagree. Only the victim knows the perpetrator and the safety risks involved. An adult victim has the right to self-determination.

Preparing Your Practice

It is essential the clinical setting for any dental care practice be designed to support the staff to respond effectively and efficiently to victims of abuse. In

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Save the Date

The Family Violence Prevention Fund will hold its biennial National Conference on Health Care and Domestic Violence: Health Consequences Over the Lifespan on Oct. 22-23 at the Park Plaza Hotel in Boston, Mass. For more information or to submit abstracts, contact Mari Spira, conference coordinator, (415) 252-8900, Ext. 20 or mari@endabuse.org. You can also visit the Web site http://endabuse.org/health/ conference/.

A pre-conference workshop for dentists, dental hygienists and dental assistants from 1 to 4 p.m. Oct 21, preceding the 2004 National Conference. Lynn Mouden, DDS, MPH, will be a faculty presenter. Mouden is president of the Association of State & Territorial Dental Directors, and director of the Office of Oral Health, Arkansas Department of Health. Participants at this workshop can earn continuing education credits. For more information, contact Vibhuti Mehra at (415) 252-8900, ext. 29 or vibhuti@endabuse.org

preparing the practice, it is advisable to obtain support from the leadership and administration at your setting as well as staff input. Given that a majority of dental care providers function as solo practitioners, it is recognized dental professionals often find it challenging to conduct routine screening for and responding to IPV. However, there are a number of easy steps dental professionals can take to overcome the challenges and make their clinical setting conducive to identifying and responding to victims of IPV in a culturally competent way.

Physical Environment

The dental care setting should provide a culturally appropriate environment for all the populations served at the clinic. The physical environment of the clinic or department should:

■ Allow for confidential interviewing, ideally establishing a policy that requires a portion of the interview be conducted in private.

■ Have posters/visual images on IPV that are multicultural, multilingual and reflect patient diversity; that present available resources, and that include information about victims, perpetrators and or other family and community members affected by abuse. ■ Have handouts that are multicultural, multilingual and reflect patient diversity for victims and perpetrators, and that describe the impact of IPV on children. These include brochures, palm cards, discharge instructions, safety planning instructions, resource and referral lists. Place these in exam rooms and private places such as the rest rooms. Take into account the literacy level of your patient population when collecting and/or developing these materials.

■ Have member or patient newsletters that contain information on IPV.

Dental care providers also need to have access to resources in order to screen and respond effectively. Provider resources should include:

Chart prompts in medical records

■ Documentation and assessment forms

■ Posters and practitioner pocket cards

■ Materials, that are regularly updated, are easily accessible to providers

■ Consultation with on-site or offsite DV advocates, legal and forensic experts, counselors with expertise in trauma treatment, and community experts from diverse communities such as the disabled, elder, teen, ethnic specific, immigrant and lesbian, gay, bisexual, and transgender

■ Feedback mechanisms for providers

Improved Staffing and Community Outreach

Hiring and designating diverse staff that represent the patient population served at your clinic can greatly impact the public perception of your practice as being sensitive to the needs of diverse communities. It is also important to train staff, from dental assistants to dentists, on how to ask and talk to a patient about domestic violence, and identify resources available in the community.

Dental care providers should also develop links to and initiate collaboration with community based agencies in their vicinity that specialize in domestic violence. To ensure supportive staff response for victims of abuse presenting at your clinic:

■ Identify and establish relationships with community programs providing culturally specific advocacy for victims of domestic violence.

■ Refer patients to advocacy and support services within the community. Offer a choice of available referrals including local DV resources or the National DV Hotline (800) 799-SAFE, TTY (800) 787-3224.

■ Refer patients to organizations that address their unique needs such as organizations with multiple language capacities, or those specializing in working with specific populations (i.e. teen, elderly, disabled, deaf or hard of hearing, particular ethnic or cultural communities or lesbian, gay, bisexual or transgender clients).

■ Trained domestic violence advocates or social workers, as well as skilled interpreters who are trained to understand domestic violence (and who are not family members, caregivers, or children of non-English speaking patients), can be made available on-site at dental offices housed within primary care clinics or settings. Dental offices housed within larger clinical settings can also hire and/or designate specific health care staff to oversee the IPV program, and invest in training and retaining the designated staff.

Training Staff

Training on domestic violence and cultural competency should be part of staff orientation - ongoing, repeated, institutionalized, and mandatory for all employees. Dental care providers who will be screening and documenting in the medical record should receive training on the dynamics of IPV and clinical response, as well as other staff and allied health professionals. The FVPF has developed a training video/CD titled Screen to End Abuse for health care providers that would be a useful training tool for dental and oral health providers (To order a copy of the video/CD, visit: http://store.yahoo.com/fvpfstore/). Receptionists and security, which can play an essential role in identifying victims, should receive general awareness training on IPV. Interpreters in particular should be trained in advance about the dynamics of IPV and the importance of confidentiality and non-judgmental interpretation and appropriate word choices for translation of routine screening questions.

Training for staff should include:

- Survivors' perspectives
- Cultural competency
- Dynamics of victimization and perpetration

■ Physical and mental health consequences of IPV on victims and children exposed

■ How to screen, assess, intervene, support, and document appropriately

■ Interactive role playing and modeling of screening and response techniques

Set Quality Improvement Goals and Implementation Methods

Systems should be in place in the dental care clinical setting that help providers ensure relevant educational materials for patients are always available; that providers and staff have the training and tools they need, and that specific quality improvement goals for IPV screening and intervention are developed. These goals can be set for screening and response protocols or for the number of patients dental care providers expect to identify and assist in their practice.

Dental care providers should ensure that the screening and response protocols for their clinical setting include:

■ Definitions, guiding principles, routine screening, assessment, intervention, and documentation strate-

How to reach us

The Family Violence Prevention Fund is a national non-profit organization committed to mobilizing concerned individuals, allied professionals, women's rights, civil rights, other social justice organizations and children's groups through public education/prevention campaigns, public policy reform, model training, advocacy programs and organizing.

The FVPF's National Health Resource Center on Domestic Violence (HRC) provides both free and low-cost resources, training materials, and technical assistance to all health care providers serving victims of domestic violence.

For technical assistance, call (888) Rx-ABUSE; TTY: (800) 595-4889; or visit the Web site: www.endabuse.org/health

gies, reporting policies and confidentiality rules

■ Roles and responsibilities of staff All staff should receive an orientation on the protocol. It should also be updated regularly and inform of new knowledge, laws, and policies regarding IPV. It should be accessible to all staff.

To maintain progress of current practices, dental care providers should ensure continuous quality improvement programs are in place at dental care clinics or facilities. A continuous quality improvement program may entail:

■ Regular discussions during staff meetings regarding functioning of IPV program

Patient satisfaction surveys

■ Links to other quality improvement efforts

■ Scheduled audits of select medical records to review compliance with protocol

■ Links to any medical information system developments

■ Continuous quality improvement goals are shared with providers

Conclusion

Dental care providers, along with other health care professionals, can play an important role in identifying and preventing intimate partner violence. Routine, culturally competent screening, with a focus on early identification of all victims of IPV whether or not symptoms are immediately apparent, is a primary starting point for an improved response in dental practice. Brief interventions with clients disclosing IPV have led to increased use of victim services, more safety behaviors, and less physical abuse.^{17,18} At the same time, dental care providers must bear in mind there are many reasons why a patient may or may not disclose abuse. Therefore, success of the provider's response should not be based on disclosure alone. The dental care provider's job is not to "fix" inti-

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mate partner violence or for the patient to leave the abuser. Dental care providers should instead focus on helping the victims by identifying the abuse, validating the victims' experiences, being supportive, and helping them to identify options. Success in a dental care setting involves creating a safe and culturally competent environment for screening and disclosure, giving supportive messages to victims, educating patients about abuse and connection to health, offering strategies to promote safety, and informing clients about relevant community resources. CDA

To request a printed copy of this article, please contact / Vibhuti Mehra, Family Violence Prevention Fund, 383 Rhode Island St., Suite 304, San Francisco, Calif., 94103-5133, (415) 252-8900, Ext. 29.

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Recommended reading / To download or order a copy of the publication National Consensus Guidelines on Identifying and Responding to Domestic Violence Victimization in Health Care Settings, visit Web site www.endabuse.org/health.

STRANGULATION

Domestic Violence: No Place for a Smile

Casey Gwinn, JD; George E. McClane, MD; Kathleen A. Shanel-Hogan, DDS, MA; and Gael B. Strack, JD

ABSTRACT

Because dentists routinely assess a patient's head, neck and mouth, they have a unique and excellent opportunity to recognize whether or not a patient is being abused.

This article seeks to enlist the collaboration of the dental community in the effort to prevent domestic/intimate partner violence and provide more information about the signs and symptoms of domestic violence injuries, including strangulation, which is often overlooked by medical and dental professionals. Strangulation has only been identified in recent years as one of the most lethal forms of domestic violence. Unconsciousness may occur within seconds and death within minutes. It is known that victims may have no visible injuries whatsoever yet because of underlying brain damage by a lack of oxygen from being strangled, victims may have many serious internal injuries or die days or several weeks later. Strangulation is often indicative of a high level of domestic violence in a relationship. Attempted strangulation may cause physiological changes evident in the course of a dental examination. For these reasons, dentists should be vigilant in

looking for its symptoms.

PURPOSE OF PAPER

Despite our collective efforts, domestic violence continues to be a problem. A missing ingredient is a strong partnership with the dental community. The legal community needs the expertise of the dental community to detect and document domestic violence injuries. Victims need support and referrals from their dentists. Early detection and intervention can save lives.

This article seeks to enlist the help of the dental community and provide more information about the signs and symptoms of domestic violence injuries, including strangulation, which is often overlooked by medical and dental professionals.

t was the loose tooth that caused Samantha to seek out her dentist. If the tooth fell out, she would have to explain what happened to her co-workers. She wasn't ready to tell, at least not yet. As she drove to the dentist's office, she practiced her story: She fell while trying to change the bathroom light bulb. Makeup would conceal the rest. The pain in her throat and the difficulty swallowing, no one would notice that. If only she hadn't resisted so much when her husband tried to choke her. But the minute Samantha checked in, the receptionist knew something wasn't right. It may have been the aimlessness with which she walked, the sadness in her eyes, or maybe the resignation in her voice. Her dentist sensed something too. Her voice sounded hoarse and a lit-





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tle raspy. Beneath her makeup, he noticed a rash and a thumb-sized bruise on her neck. This was not the first time he had noticed injuries that seemed inconsistent with her explanations and certainly not the first time that Samantha refused to smile. But this time, things seemed more serious. To the dentist the injuries suggested violence, possibly even attempted strangulation. What should he do? Should he say something to Samantha? To someone else? Did his suspicions put him under any sort of legal obligation?

Domestic violence leaves no room for a smile - not in one's home, at work, or even in a dentist's office. Domestic violence is now recognized as one of the nation's most pressing women's health problems.¹ The Centers for Disease Control and Prevention reports that the health-related costs of intimate partner violence against women exceed \$5.8 billion annually in the U.S. The cost to the criminal justice civil, juvenile and criminal) has yet to be calculated. It is estimated that nearly 4 million women each year suffer domestic violence.² When battered women are severely injured, they seek help. They seek help from police officers and their health care professionals, including their dentist. Between 22 percent and 35 percent of women's visits to hospital emergency departments are prompted by injuries or illness related to ongoing abuse or stress from such abuse.³ The literature reports 36 percent to 95 percent of battered women are suffering injuries to the face, neck or head.⁴ It is important to also recognize that men or women can be battered by intimate partners of either sex. Dentists naturally observe a patient's head, neck and mouth. As such, dentists have a unique opportunity to recognize whether or not a patient is being abused.

Over the last 20 years, due to heightened awareness, both the health care and criminal justice system have addressed the issue of domestic violence. Health care professionals have also become increasingly involved in the fight against domestic violence. In 1985, former U.S. Surgeon General C. Everett Koop brought national attention to domestic violence as a public health problem.⁵ The surgeon general stated:

"Identifying violence as a public health issue is a relatively new idea.

Because dentists routinely assess a patient's head, neck and mouth, they have a unique and excellent opportunity to recognize whether or not a patient is being abused.

Traditionally, when confronted by the circumstances of violence, the health professions have deferred to the criminal justice system ... [Today] the professions of medicine, nursing and the health-related social services must come forward and recognize violence as their issue."⁶

Dentists can play a key role in the fight against domestic violence

Because dentists routinely assess a patient's head, neck and mouth, they have a unique and excellent opportunity to recognize whether or not a patient is being abused. One of "the most important contributions physicians can make to ending abuse and protecting the health of its victims is to identify and acknowledge the abuse," according to the Council on Ethical and Judicial Affairs, AMA, 1992. Dr. Ellen Taliaferro finds that although some controversy exists regarding the need for screening and which methods of screening are best, it is prudent to offer some form of screening to all patients presenting to the health care system. This can be done by direct clinician inquiry, patient health questionnaires or system query in the form of posters and information available for distribution. Effective screening sets the stage for intervention and successful intervention sets the stage to break the cycle of violence.⁷

In a recent survey conducted by the UCSF School of Dentistry, it was found that many dentists currently don't screen for, or even report, signs of domestic violence, but more than half the dentists surveyed said they would like more training in this area. Aside from a lack of proper education in detection of the clinical signs and symptoms of human abuse,⁸ the UCSF researchers found other reasons for the lack of screening: the presence of family members during the visit; concerns about offending the patient and the dentist's own embarrassment when talking to the patient.

Under California law, health care providers must report suspected or known domestic violence due to physical assault to local police by telephone immediately and in writing within 48 hours.9 Dentists, registered dental hygienists, and registered dental assistants are mandated reporters and are required to report. Failure to report domestic violence exposes the health care provider to a misdemeanor which is punishable by a maximum \$1,000 fine and/or six months in county jail. Not only is the failure to report a violation of law, it also makes it more difficult for the dentist to defend against potential civil lawsuits. More importantly, failing to report suspected or known instances of domestic violence represents a missed opportunity to assist the patient in escaping an abusive relationship.

There is some controversy regarding the efficacy of screening and reporting

laws but this is not the subject of this article. Rather, this article is intended to inform health care providers that they are subject to the law and that they must follow the law's relatively straightforward reporting requirements. In fact, 45 states have laws that mandate reports of injuries caused by weapons, crimes or domestic violence.¹⁰ At least one study has shown that mandatory reporting laws do not deter patients from seeking medical care.¹¹ Researchers using both simple interview techniques and questionnaires in medical surroundings have found that identification of domestic violence is not difficult.¹² Also, in many cases women do talk quite frankly about causal factors when asked directly and often battered women are waiting for someone to do just that.13 The dental professional often has established trust with the patient and appointments are often 45 minutes to 90 minutes long. The research indicates that by asking a few well-placed questions, dentists can confirm the presence of domestic violence and set the stage for positive intervention in the lives of battered women.

It is true for all victims and it is true for victims in dentists' offices: "[I]identification of domestic violence is the first stage of intervention. Asking about abuse helps to break the isolation a battered woman may experience and lets her know resources are available if and when she feels she can use them."¹⁴ In a study of how physicians helped victims of domestic violence, UCSF researchers found that physicians who provided validation - acknowledged that the abuse had occurred and confirmed the patient's worth - had a positive impact on patients. The study found validating messages such as "battering is wrong" and "you deserve better treatment" not only provided relief and comfort to women, but also helped them realize the seriousness of their situation and helped them move forward toward safety.¹⁵ A dentist who recognizes the signs of domestic violence and is willing to offer understanding and support — even within the limited confines of an office visit — can provide a much-needed measure of hope for the battered woman. Because a battered woman is subject to an intense level of emotional degradation on an almost daily basis, a few words of encouragement may help her to begin to re-evaluate her relationship and possibly move her beyond the violence.

By asking a few well-placed questions, dentists can confirm the presence of domestic violence and set the stage for positive intervention in the lives of battered women.

In any event, it is unlikely she will forget the intervention.¹⁶

In the absence of intervention, battering tends to recur with increasing frequency and severity.17 To safeguard victim safety, Warshaw and Ganley recommend that health care providers should inform patients of their legal obligation to report if domestic violence is indicated.18 It is recommended that before making a report, a concerned dentist should explain that the consequences of the report may include a law enforcement response. Asking the patient to participate in the telephone call to make the report can facilitate a dialogue between the patient and law enforcement. The response can then work collaboratively with the patient regarding timing and type of response with attention to the safety of the patient and any children. Dentists should also have available an

updated list of local domestic violence service agencies¹⁹ and other community resources to give to battered patients. Materials from Dental Professionals Against Violence (DPAV) can assist the dental professionals in preparing a protocol for the dental offices. For more information contact DPAV at the California Dental Association Foundation (916) 443-3382, ext. 8900.

Dr. Barbara Gerbert, who is a UCSF professor and chair of the Division of Behavioral Sciences in the School of Dentistry, suggests a model in which dentists ask patients about abuse. Give validating messages which acknowledge that battering is wrong and which confirm the patient's worth; document signs, symptoms and disclosures in writing and with photographs; and refer victims to domestic violence specialists in the community.

While detection of domestic violence injuries is generally not difficult, it does require the healthcare professional to be perceptive. There is a tendency of abused patients to minimize domestic violence and/or hide their injuries. For this reason, it is important to review the obvious signs of injuries as well as the subtler signs and symptoms of strangulation.

Domestic Violence Injuries

The head, face and neck are the most frequent places injury is received during domestic violence. There is also evidence to suggest that male attackers may tend to avoid striking the face so that injuries will not be apparent to onlookers; instead, a blow to the back of the head may be more common.²⁰ Drs. Salber and Taliaferro have identified the following injuries as characteristic of domestic violence.²¹

■ Bilateral injuries, especially to the extremities

Injuries at multiple sites

■ Fingernail scratches, cigarette burns and rope burns

■ Abrasions, minor lacerations or welts

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■ Pattern injuries such as bite marks; marks from jewelry, belts or keys; or designs or patterns stamped or imprinted on or immediately below the epithelium by weapons

■ Injuries that are inconsistent with the victim's explanation

 Multiple injuries in various stages of healing

Injuries during pregnancy

The typical bite mark, according to Dr. Sperber, is a "round or oval, ringshaped injury consisting of two facing arches, each made up a series of aligned contusions, abrasions and/or lacerations. The center injury measures 3 cm to 4 cm. The individual markings comprising the arches represent the biting surfaces of front teeth distributed around the upper and lower jaws."

There are also variations in the pattern: $^{\rm 22}$

■ Central ecchymosis — contusion within the center of the bite mark caused by capillary bleeding. It occurs as a result of compression of tissue by the teeth with or without suction.

■ Drag marks — radiating, linear contusions or abrasions at the periphery of the mark indication of scraping of teeth along the skin as the bite occurred.

■ Avulsed bite mark — when the bitten tissue is torn off, leaving a central lacerated defect.

■ One arched bite mark — rare, but may occur.

■ Half-bite mark — when only the right or left side of a bite mark shows up.

■ Double-bite mark — bite mark within a bite mark. Occurs when skin is bitten, then starts to slip out between teeth and is bitten again.

• Overlapping bite marks — multiple, separate bite marks made repeatedly in the same general location.

■ Toothless bite mark — shows a contused ring of compatible size and curvature but without well-defined, individual tooth marks. Occurs in healing bite marks and bite marks on soft or fatty skin.

Typical domestic violence injuries

that may be detected by a dentist²³ are:

■ Intraoral bruises from slaps, hits and soft tissue pressed on hard structures like teeth and bones.

■ Soft and hard palate bruises and abrasions from implements of penetration could indicate force from a sexual act.

■ Fractured teeth, nose, mandible and/or maxilla. Signs of healing fractures may be detected in panoramic radiographs.

■ Abscessed teeth could be from tooth fractures or repeated hitting to one area of the face.

■ Torn frenum (a fold of membrane

Attempted strangulation may cause physiological changes evident in the course of a dental examination.

which checks or restrains the motion of a part, such as the fold on the underside of the tongue or upper lip) from assault or forced trauma to the mouth.

■ Hair loss from pulling, black eyes, ear bruises, other trauma and lacerations to the head.

The Signs and Symptoms of Attempted Strangulation

Strangulation has only been identified in recent years as one of the most lethal forms of domestic violence. Unconsciousness may occur within seconds and death within minutes.²⁴ It is known that victims may have no visible injuries whatsoever, yet because of underlying brain damage by a lack of oxygen from being strangled, victims may have many serious internal injuries or die days or several weeks later.²⁵ Strangulation is often indicative of a high level of domestic violence in a relationship. Attempted strangulation may cause physiological changes evident in the course of a dental examination. For these reasons, dentists should be vigilant in looking for its symptoms.

In a study conducted by the San Diego City Attorney's Office of 300 domestic violence cases, visible injuries such as tiny red spots on the face, bloody red eyes, red marks, scratches and bruising on the neck, were only visible 16 percent of the time.²⁶ Often, when visible injuries were present, the injuries were subtle and hard to find. The study disclosed other symptoms. To understand the medical significance of the findings from the study, the city attorney's office enlisted the help of George McClane, an emergency physician, and Dean Hawley, a specialist in forensic pathology, for their medical perspective.

The Medical Perspective

Strangulation is defined as a form of asphyxia characterized by closure of the blood vessels and/or air passages of the neck as a result of external pressure on the neck.^{27,28} The three forms of strangulation are hanging, ligature, and manual. Almost all attempted or actual homicides by strangulation involve either ligature or manual strangulation. Ten percent of violent deaths in the U.S. each year are due to strangulation, six females to every male.

Ligature strangulation is strangulation with a cord-like object (also referred to as garroting), and may include anything from a telephone cord to articles of clothing.^{29,30} Manual strangulation or throttling is usually done with the hands, but notable variants include using the forearms (as when police officers use the carotid restraint) to standing or kneeling on the victim's throat.^{31,32} Manual self-strangulation is not possible, because when the individual loses consciousness, pressure can no longer be applied.

A review of neck anatomy is critical

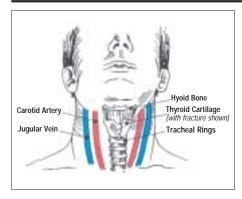


Figure 1. Anatomy illustration of the neck.



Figure 2. These markings may have been caused by the victim's fingernails in an attempt to remove a chokehold. They also may be caused by the assailant adjusting their hands and applying force during a vigorous struggle. The webbing between the thumb and index finger can produce the linear lesions shown.

in order to understand adequately the clinical features of a strangled victim. The hyoid bone, a small horseshoeshaped bone in the neck, helps to support the tongue. The larynx, made up of cartilage, not bone, consists of two parts: the thyroid cartilage (so-called because it is next to the thyroid gland) and the tracheal rings.

Carotid arteries are the major vessels that transport oxygenated blood from the heart and lungs to the brain. These are the arteries at the side of the neck that persons administering cardio-pulmonary resuscitation check for pulses. Jugular veins are the major vessels that transport deoxygenated blood from the brain back to the heart (**Figure 1**).

The general clinical sequence of a victim who is being strangled is one of severe pain, followed by unconsciousness, then brain death. The victim will lose consciousness by any one or all of the following: blocking of the carotid arteries (depriving the brain of oxygen), blocking of the jugular veins (preventing deoxygenated blood from exiting the brain), and closing off the airway, causing the victim to be unable to breathe.

Only 11 pounds of pressure placed on both carotid arteries for 10 seconds is necessary to cause unconsciousness.³³ However, if pressure is released immediately, consciousness will be regained within 10 seconds. To completely close off the trachea, three times as much pressure, 33 pounds, is required. Brain death will occur in four to five minutes, if strangulation persists.

Signs and Symptoms

Symptomatic voice changes will occur in up to 50 percent of victims, and may be as mild as simple hoarseness or as severe as complete loss of voice.34 Swallowing changes are due to injury of the larynx cartilage and/or hyoid bone. Swallowing may be difficult but not painful, or painful. Breathing changes normally the result of the hyperventilating that goes hand in hand with a terrifying event-may more significantly be the result of an underlying neck injury. The victim may find it difficult to breathe (dyspnea) or may be unable to breathe (apnea). It is critical to note that breathing changes following an attempted strangulation may be subtle or mild. However, the, underlying injuries may kill the victim up to 36 or more hours later due to the decompensation of the underlying injured structures. Because dentists are unlikely to see the victims of attempted strangulation until hours or days after the event, they should be especially watchful for labored breathing.



Figure 3. Classic abrasions caused by victim's own nails while attempting to remove assailant's hands or ligature. The vertically oriented pattern demonstrates bicep muscle strength at its best advantage in this defensive maneuver.

Behavioral changes may manifest early as restlessness and combativeness due to temporary brain anoxia and/or severe stress reaction, and subsequent resolve.³⁵ While dentists may not have the opportunity to observe these early symptoms, changes can also be long-term, resulting in frank psychosis and amnesia.

Visible injuries to the neck include scratches, abrasions, and scrapes. These may be from the victim's own fingernails as a defensive maneuver, but commonly are a combination of lesions caused by both the victim and the assailant's fingernails.

Lesion location varies depending on whether the victim or assailant used one or two hands, and whether the assailant strangled the victim from the front or back. Three types of fingernail markings may occur, singly or in combination: impression, scratch, or claw marks (**Figure 2**).

Impression marks occur when the fingernails cut into the skin; they are shaped like commas or semi-circles. Scratch marks are superficial and long, and may be narrow or as wide as the fingernail itself. Claw marks occur when the skin is undermined; they tend to be more vicious and dramatic appearing^{36,37,38} (**Figure 3**).

Because most victims are women, the





Figure 4. Often, when a single bruise is the sole finding on a victim's neck, it may be caused by the assailant's thumb as this opposing digit has the greatest vector force in a human grip. It may or may not manifest up to 24 hours after the assault took place.

scratches caused by their longer nails frequently are more severe than the scratches caused by the assailant. Claw marks may be grouped, parallel markings vertically down the front of the neck, but often are scattered in a random fashion.

Redness on the neck may be fleeting, but may demonstrate a detectable pattern.³⁹ These marks may or may not darken to become a bruise. Bruises may not appear for hours or even days. Fingertip bruises are circular and oval, and often faint. A single bruise on the neck is most frequently caused by the assailant's thumb⁴⁰ (**Figure 4**).

However, bruises frequently may run together, clustering at the sides of the neck, as well as along the jaw lines, and may extend onto the chin, and even the collar bones.

Chin abrasions are also common in victims of manual strangulation, as the victim lowers the chin in an instinctive effort to protect the neck, and in so doing, scrapes the chin against the assailant's hands. It is important that a dentist document visible injuries to the neck and face; photographs are an especially effective form of evidence.

The tiny red spots, petechiae, characteristic of many cases of strangulation are due to ruptured capillaries — the smallest blood vessels in the body — and sometimes may be found only under the eyelids (conjunctivae).⁴¹ However, sometimes



Figure 5. Diffuse petechiae with a confluent pattern found on upper eyelid of a young child strangled by an adult male. Due to a thin dermal layer, the eyelids are among the most susceptible tissue to manifest visible petechiae on both the external and internal surfaces.

they may be found around the eyes in the peri-orbital region, anywhere on the face, and on the neck in and above the area of constriction (**Figure 5**).

Petechiae tend to be most pronounced in ligature strangulation.⁴² Blood-red eyes are due to capillary rupture in the white portion of the eyes (**Figure 6**). This phenomenon suggests a particularly vigorous struggle between the victim and assailant.

Ligature marks such as rope burns may be very subtle, mimicking the natural folds of the neck. They may also be much more dramatic, reflecting the type of ligature used, e.g., the wave-like form of a telephone cord, or the braided pattern of a rope or clothesline. If the victim has been strangled from behind, the impression from the ligature generally will be horizontally oriented at the same level of the neck.

Swelling of the neck may be caused by any one or combination of the following: internal bleeding,⁴³⁻⁴⁵ injury of any of the underlying neck structures, or fracture of the larynx allowing air to escape into the tissues of the neck.

Last, victims may have no visible injuries whatsoever, with only transient symptoms — yet because of underlying brain damage by lack of oxygen during strangulation, victims have died up to several weeks later.⁴⁶ Because of these unforeseen consequences of injuries



Figure 6. Subconjunctival hemorrhages are essentially confluent petechiae caused by the rupture of the capillaries in the ocular sclerae bursting from venous back up due to external pressure placed upon the jugular veins. Though dramatic, they are painless, harmless and resolve in a matter of days.

from a strangulation attempt that may appear minor, dentists should encourage a medical evaluation of all victims who report being strangled or "choked."

At the Forensic Medical Unit located at the San Diego Family Justice Center, the accompanying form (see page 408) is used for the documentation of strangulation injuries. Dentists are encouraged to use this form, or an equivalent, if they suspect or know a patient has been subjected to attempted strangulation.

Small Window of Opportunity

The window of opportunity to intervene in domestic violence cases is short. Depending on the victim, her willingness to tell the truth may last only minutes and usually no more than a few days. She may also be experiencing guilt, one of four characteristics of the Battered Woman Syndrome⁴⁷ — guilt, denial, enlightenment or responsibility. For this reason, a dentist who suspects domestic violence needs to work fast and intervene as quickly as possible. Recognize that by the time a women seeks dental care for her injuries, she may have had further contact with the batterer and may already be entering the "honeymoon phase." Accordingly, a dentist should not be surprised if the patient refuses to admit to any violence and attempts to describe her injuries as the result of an accident.

Even when the victim denies that

domestic violence is taking place, this is a good opportunity to ask the victim if she feels safe and if she believes it is OK to be abused. Usually victims will respond: "No, it's not OK." If this is the response, another follow up question could be: "What would you like to see done?" or "How can the behavior be stopped?" This discussion helps the victim understand why police and prosecutors need to go forward in order to stop abusive behavior even if she does not to participate in the criminal proceedings. It also helps victims understand that police and prosecutors are trying to help.⁴⁸

By understanding why victims deny that domestic violence is taking place, dentists will be able see through the victim's "protection mechanism," and develop supportive and compassionate interviewing skills which will elicit truthful information as opposed to "shutting" her down.

Documentation

Documentation is key to a successful intervention. When accurately and objectively documented, documentation of domestic violence incidents can be useful for criminal prosecution as well as civil cases. Language is critical. Personal beliefs, biases or prejudices should never appear in a medical record. As an example, the following phrase casts doubt on the victim's credibility: "the patient claims that her boyfriend hit her" as opposed to "the patient stated "I was hit by my boyfriend."

Even if victims are initially reluctant to report, she may later want to pursue legal remedies. She may also change her mind. Documentation of past incidents will help either a criminal or civil case,⁴⁹ especially if that documentation is absent of bias.

Even when victims recant or become unavailable for trial, prosecutors can still proceed with prosecution without the victim's testimony through what is now commonly referred to as evidence-based prosecution. From the dentist's perspective evidence-based prosecution⁵⁰ simply means documenting the demeanor, description and physical condition of the victim — including injuries or lack of injuries; identity of the reporting party; the party's dental treatment; obtaining a medical release from the victim to later corroborate her injuries; and any other information — such as the identity of the abuser — that the victim is willing to provide that will assist in the prosecution of the batterer.

For purposes of mandated reporting under California Penal Code section 11161, mandated reporters are required to provide the following:

Personal beliefs, biases or prejudices should never appear in a medical record.

■ The name of the injured person, if known.

■ The injured person's whereabouts.

■ The character and extent of the person's injuries.

■ The identity of the person who inflicted the wound, other injury, or assaultive or abusive conduct upon the injured person.

Penal Code Section 11161 further recommends the following additional information be included in medical records:

■ Include any comments by the injured person regarding past domestic violence and the name of the abuser.

■ Map of the injured person's body showing and identifying injuries and bruises at the time of the health care visit.

■ Copy of the law enforcement reporting form.

The authors recognize the typical dentist's office may not be equipped with special domestic violence forms, body maps and/or a camera to document additional information about domestic violence. The good news is today there are many resources for medical professionals to improve their documentation.⁵¹ There is no need to reinvent the wheel. The Family Violence Prevention Fund has developed health kits which may be easily obtained via Web site www.fvpf.com to address the issue of domestic violence in the dental office. Included in this issue is a copy of Sacramento County's Intimate Violence Mandated Report Form developed through the collaboration of all the healthcare systems in Sacramento, the dental community, law enforcement, justice system, and fire/EMS departments. Domestic violence professionals such as police officers, prosecutors and/or advocates, are frequently available to provide training and other materials that contain information about local resources. Often, a single phone call to a local domestic violence shelter can provide a wealth of phone numbers from which additional resources and professionals can be located. And, DPAV provides continued training and support of dental professionals to recognize, respond and report domestic violence situations as well as child abuse/ neglect and dependent and elder abuse/ neglect. For more information contact DPAV at the California Dental Association Foundation (916) 443-3382, Ext. 8900.

As a general rule, documentation of domestic violence injuries will generally result in the quicker disposition of cases in court without requiring a health care provider's in-court testimony. More importantly, clear documentation can greatly increase victim safety and offender accountability. By providing complete, objective and bias-free documentation in dental records, dentists can substantiate a victim's account of the incident⁵² and make available more accurate data. The data in turn lays the groundwork for effective prevention strategies, improved

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policies and legislation. Patient charting is the essential first step toward injury prevention.53 Structured charting may provide yet more complete data collection.^{54,55} The dental chart reflects collected information and data regarding incidents of trauma, routine examinations, and treatments that often include charting of the soft and hard tissues of the head and neck. Periapical radiographs of individual teeth and panoramic radiographs of the head may be available for pre- or post-trauma comparison. If the patient has had restorative or orthodontic treatment, available plaster or stone study models may demonstrate pre-trauma conditions. Intraoral photographs may document structures prior to trauma. If trauma is demonstrated inside the mouth, intraoral color photography provides documentation. Extraoral photographs may be available also.

Conclusion

Efforts have improved identification, documentation, professional education, forensic examination, community prevention efforts and funding of services for victims of domestic violence.56 California now boasts sophisticated responses to domestic violence from domestic violence response teams; vertical units in police departments or prosecutor's office, specialized courts, the California Medical Training Center and Family Justice Centers in San Jose and San Diego which houses the Forensic Medical Unit sponsored by Sharp Grossmont Hospital. The CDA Foundation with funding from Blue Shield Foundation and Dental Benefit Providers has expanded the previous PANDA efforts to become DPAV to educate dental professionals, other mandated reporters, and foster community collaboration.

If battered victims with injuries seek help from the legal and medical system, then it is clear that the dental and legal communities must work more closely together. By developing strong partnerships, we can restore the smiles of victims and their children. The time has come for the dental and legal professions to share their expertise and work more closely with other domestic violence prevention professionals. No single group can do it alone. Together we can!

To request a printed copy of this article, please contact / Gael Strack, assistant city attorney, San Diego City Attorney's Office, Family Justice Center, 707 Broadway, Suite 7900, San Diego, Calif., 92101.

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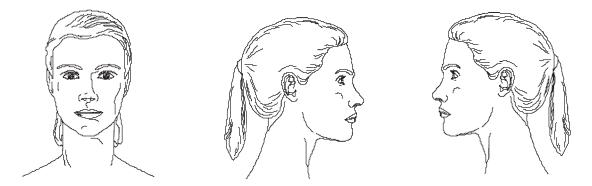
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Breathing Changes	Voice Changes	Swallowing Changes	Behavioral Changes	OTHER
Difficulty Breathing Hyperventilation Unable to breathe Other:	Raspy voice Hoarse voice Coughing Unable to speak	Trouble swallowing Painful to swallow Neck Pain Nausea Vomiting	Agitation Amnesia PTSD Hallucinations Combativeness	Dizzy Headaches Fainted Urination Defecation

Symptoms and/or Internal Injury:

Use face & neck diagrams to mark visible injuries:



Face	Eyes & Eyelids	Nose	Ear	Mouth
Red or flushed Pinpoint red spots (petechiae) Scratch marks	Petechiae to R and/or L eyeball (circle one) Petechiae to R and/or L eyelid (circle one) Bloody red eyeball(s)	Bloody nose Broken nose (ancillary finding) Petechiae	Petechiae (external and/or ear canal) Bleeding from ear canal	Bruising Swollen tongue Swollen lips Cuts/abrasions (ancillary finding)
Under Chin	Chest	Shoulders	Neck	Head
Redness Scratch marks Bruise(s) Abrasions	Redness Scratch marks Bruise(s) Abrasions	Redness scratch marks Bruise(s) Abrasions	Redness Scratch marks Finger nail impressions Bruise(s) Swelling Ligature mark	Petechiae (on scalp) Ancillary findings: Hair pulled Bump Skull fracture Concussion

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Questions to ASK: Method and/or Manner:

How and where was the victim strangled?					
One hand (R or L)	☐ Two hands	Forearm (R or L)	☐Knee/Foot		
Ligature (Describe):					
□ How long? seconds	_minutes 🗌 Also smothered?				
☐ From 1 to 10, how hard was the suspect's grip? (Low): 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 (high)					
From 1 to 10, how painful was it? (Low): 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 (high)					
Multiple attempts: Multiple methods:					
Is the suspect RIGHT or LEFT handed? (Circle one)					
What did the suspect say while he was strangling the victim, before and/or after?					
Was she shaken simultaneously while being strangled? Straddled? Held against wall?					
Was her head being pounded against wall, floor or ground?					
What did the victim think was going to happen?					
How or why did the suspect stop strangling her?					
What was the suspect's demeanor?					
Describe what suspect's face looked like during strangulation?					
Describe prior incidents of strangulation? Prior domestic violence? Prior threats?					
MEDICAL RELEASE					

To All Health Care Providers: Having been advised of my right to refuse, I hereby consent to the release of my medical/dental records related to this incident to law enforcement, the District Attorney's Office and/or the City Attorney's Office.

Signature:	Date:
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Forensic Odontology: A Global Activity George A. Gould, DDS

ABSTRACT

Forensic odontology is an important and expanding field of dentistry. The application of these forensic techniques in identification, criminal justice and dental liability are being practiced worldwide. In some mass disaster events, notably large commercial aircraft crashes, the traumatic forces are such that fragmentation and conflagration result in only the most durable of human tissues-dentition survive and become a potential source of identification.

PURPOSE OF PAPER

It is the purpose of the article to familiarize medical and dental personnel on the recognition of and appropriate response to dentally related matters most commonly encountered in professional offices and referred by public safety officials. The intent is to assist dental professionals to know how and under what condition it is necessary to initiate a response, and when it is necessary to seek the services of a colleague more advanced and versed in forensic odontology.

orensic odontology is not one of the recognized specialties of dentistry but rather the application of a field of special interest in dentistry to matters of law. In recent years, research, technology and tribunal activities have resulted in a refinement of the criteria for those dentists interested in functioning as a forensic consultant and hence, expert witness for forensic odontology.

Forensic dentistry has major divisions of interest, which are: dental identification¹ and mass disaster management,² bite mark analysis,³ dental liability and malpractice^{4,5} fraud,⁶ age determination,7 and human abuse and neglect. All of these divisions of activity have structured formats and procedures to appropriately manage the acquisition, custody and analysis of evidence. In addition, there is established terminology to define the evaluation when



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counties' coroner and sheriff's departments. He was in private practice for more than 30 years. He is a diplomate of the American Board of Forensic Odontology, and a fellow of the American Academy of Forensic Sciences.

composing a forensic dental report.⁸ It is an objective of this article to present various techniques that are customarily used to conduct a forensic odontology investigation.

There are organizations that offer structured programs of special training and education, such as the Armed Forces Institute of Pathology and the University of Texas in San Antonio. Some of these programs lead to supplemental credentials accepted by many courts, both within the U.S. and internationally, as verification that the witness has undertaken advanced training in forensic odontology.

Within a geographic area, usually a city or county, an individual functioning as a forensic odontologist has a responsibility to communicate pertinent information to enhance a professional relationship with local law enforcement, health and welfare agencies and social service organizations. Some of the signs of human abuse, often seen by emergency room and responding law enforcement personnel, can be manifested in injuries that may be difficult to initially identify as bite marks. It is a duty of the forensic dentist to conduct seminars designed to assist in the recognition of potential patterned injuries that might be of dental origin.⁵ The community odontologist should stand ready to educate such personnel on recognizing and collecting evidence pertaining to patterned injuries.

The seminars should include information on appropriate photography⁹ of the injury area as shown in a following portion of this article. The issue of elapsed time may be a critical factor in the capture of important features that may be lost due to changes related to rapid tissue responses, fading and possibly distortion of the image.

It is common the only available photographs in a criminal or civil matter involving dental evidence are those taken by an individual other than the forensic dentist. Based on this history, it is in the best interest of both the forensic

The photographs become a key element and an integral part of forensic investigations and are usually the basis for determinations of responsibility.

dentist and all those involved with the documentation of evidence that appropriate techniques are utilized.

In addition to forensic photography, the correct method to recover DNA evidence¹⁰ from bite mark sites must be included in the presentation of forensic investigative techniques. A positive match of DNA from a bite mark site and that of a suspect is a significant finding that adds to scientific certainty.

One method recognized as appropriate is known as double swabbing. One swab is dipped into sterile water and applied with a circular motion over the pattern injury. The swab is then air dried and returned to a sterile glass tube, and a second swab is used dry and rubbed over the same area to absorb much of the moisture that remained from the first swabbing. This swab is also air dried and returned to the tube, which is sealed.

The objective of the second swabbing is to capture dried saliva cells containing DNA loosened by the first swabbing. A second tube of swabs is used in the same way on a separate non-injury area of the individual to act as a control.

Forensic Photography⁹

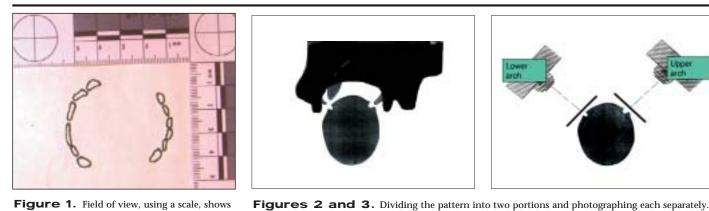
Scientific photography is essential to document and preserve images when conducting identifications, bite mark investigations and other dentally related forensic activities. In pattern injury cases, the photographic images of the pattern are used during the comparison with other objects or an overlay image of the incisal biting surfaces of a suspected individual.

The photographs become a key element and an integral part of forensic investigations and are usually the basis for determinations of responsibility. Due to their central importance in these cases, it is required they be shared with other parties to a legal undertaking. Photography is equally important when performing identification to preserve images of the dentition.

Currently there are numerous manufacturers of quality digital and conventional 35-mm cameras available for forensic investigations. A primary criteria in the selection of a camera has the ability to provide high quality 1:1 closeup macro images.

It is suggested the photography be







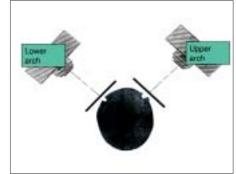


Figure 1. Field of view, using a scale, shows area of interest.

in black and white, as well as color. Other considerations are field of view, appropriate shutter speeds, f-stop settings for depth of field, and control of light intensity, source and angulation.

Field of view should show the area of interest centered and millimeters scale, preferably an ABFO No. 2,11 close to but not obscuring any portion of the injury (Figure 1).

Curved Surfaces

In many situations, due to the curvature of an injury area, it is necessary to divide the pattern into two portions and photograph each as a separate image thus avoiding a common source of distortion (Figures 2 and 3).

Camera Angulation

Figure 3 also demonstrates the camera must be oriented 90 degrees to the surface. Attention to this matter will usually provide an accurate view without angulation related distortion.

Light Control and Angulation

Figure 4 demonstrates the use of four sample light source angulations. This issue is especially significant with situations where there is a depth or third

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dimension to the injury area. The light source and angulation will determine the existence or position of shadows and highlights.

Figure 3 also shows the camera oriented 90 degrees to the surface.

It is recommended the photographer take several pictures using the same camera orientation but varying the light source position, as illustrated. If the light-generating equipment has intensity controls, that feature may also be used to enhance the image quality.

Light control angulations render a specific variety of highlights and shadows to a bite mark, especially if it has a depth dimension.

Video Superimposition

By the use of two video cameras in conjunction with a digital mixing device, the overlay of one image over another, is an effective technique to compare two objects (Figures 5 and 6). For example, a life-size image of the incisal edges of a dentition can be superimposed over a life-size photograph of a bite mark. A definitive comparison may be possible if the bite mark displays specific registration of individual teeth such as the mesial to distal and facial to lingual dimensions, and arch alignment and any unusual characteris-



Figure 4. The use of four sample light source angulations.

tics such as misorientation or fractures of incisal edges.

Video superimposition provides the dynamic features of sweeps and other comparison views inherent in the programs of the digital mixing device.

The author has applied the video superimposition technique to bite mark analysis and identification cases. When the customary antemortem dental records and X-rays are not available, it is possible to achieve a positive identification by comparing antemortem photographs with remains.

This technique requires a considerable amount of equipment and is not necessarily recommended as a system to





Figure 5. Two video cameras superimposition.

be included in a forensic odontologist inventory. It is reasonable to seek assistance from those forensic dentists familiar with special methods when a consultation would enhance an investigation. In fact, it is not uncommon for forensic odontologists to seek peer review when conducting cases.

The author presents two cases: one an identification and the other a bite mark where superimposition was used to perform an analysis and arrive at determinations.

Identification

This identification case involves partially skeletonized human remains found in northern Mexico (**Figure 7**). It was determined the individual was probably from California. Mexican officials contacted the Missing and Unidentified Persons unit (MUPS) of the California Department of Justice (DOJ).

A search of the MUPS list of persons reported missing within the previous six months established only one individual had matching physical characteristics of height, gender, age and hair color.

The reporting person, a close relative, was contacted to obtain antemortem data helpful in an identification. Exhaustive efforts were able to provide only a recent photograph that clearly showed the upper front teeth (**Figure 8**).

Figure 6. Digital video mixing board.

The remains were sent to the Sacramento facility for further analysis by the MUPS staff, and the author, who functions as a DOJ forensic odontology consultant. By the use of video superimposition, a positive identification was established (**Figure 9**).

The author has also used photographic superimposition in other cases where antemortem dental X-rays and records were not available. Some of these identifications were central issues in criminal matters and some required testimony in homicide cases.

Bite Mark Comparison

The following case involved a brutal assault by a male acquaintance who was stalking a woman. The incident took place at night while she was sleeping in her residence. After he gained entrance, he attacked her in her bed. She awoke with his hands around her neck, and the violent struggle ended with her rendering him unconscious by striking him with a heavy object.

When she gave her statement to the police detectives, she thought the marks on her neck were from his strangulation hold. The police photographer documented the injuries as a routine part of the investigation.

At a later time, just before the trial, the detective was meeting with a local forensic dentist to discuss a review of photographs. He immediately recognized the neck pattern injury was a probable bite mark and not a handprint.

The dentist contacted the author to collaborate on the analysis of what was determined to be a bite mark with numerous significant and unique features for comparison. Plaster models of the suspects teeth were obtained and compared to the pattern injury using the customary overlay technique.

The comparison yielded an opinion that, within reasonable dental certainty, the dentition of the suspect did make the pattern injury bite mark. It has been the author's experience many suspected bite marks do not have sufficient specific detail to establish a cause and effect relationship to a specific dentition.

This case is an example of the usual analytical techniques of bite mark investigation. This is customarily to superimpose the overlays of the anterior incisal edges of the suspected dentition on photographs of the injury pattern. The degree of clarity the photograph displays the dimensions, or oddities of alignment or acquired unique features, will determine its evidential value.

The following pictures show facial view (mirror image) of suspect dentition (Figure 10); bite mark photograph (Figure 11); overlay of incisal view superimposed on bite mark (Figure 12); and incisal view (mirror image) (Figure 13).

The central incisors have an atypical rotated alignment, and chipped and worn biting edges that have a unique concordance with the drag marks in the bite mark image. In addition, the left lateral incisor is above the plane of occlusion and would not

CASE STUDIES



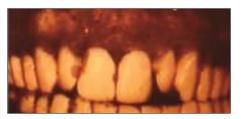




Figure 7. Remains from partially skeletonized human.

Figure 8. Antemortem photograph from relatives.



Figure 10. Mirror image showing irregular incisal edges and left lateral above the plane of occlusion.



Figure 11. Bite mark displaying striated drag marks and a lack of marking in the position of a left lateral incisor.



Figure 12. The overlay of the maxillary anteriors and bicuspids superimposed on the bite mark photograph.

be expected to register on a bitten surface, a feature consistent in the bite mark photograph.

In the bite mark case presented, the prosecution had the advantage of a living victim who was able to positively identify the attacker. The suspect was also found by the police to be unconscious on the floor next to the victim's bed. This validated the findings of the odontologist, who was not informed of the sur-



Figure 13. Mirror image incisal view of maxillary anterior teeth, upon which the overlay shown in Figure 12 was constructed.

rounding details until the analysis was completed and an opinion submitted.

DNA swabbings were not taken on this case because the initial investigation did not suspect the injury was due to a bite. The author has experienced other situations where a pattern injury, thought to be of some other origin, was in fact a bite mark. The opposite is also true, where an investigator suspected a bite mark that analysis determined otherwise.



Figure 9. Superimposition of Figures 7 and 8.

Summary

It has been the author's experience that bite mark cases that consist of images with definitive features representing the responsible dentition, when appropriately documented with photography and other evidence management techniques, often result in a forensic report that garners a stipulated acceptance in a court of law.

The lesson learned from a variety of circumstances is that an observation of a pattern mark or injury should be properly documented by photography and presented to experts for analysis. In emergency and law enforcement responses, forensic dentists should be requested to participate in matters that have an initial suspicion or observation of being potentially a dental-related matter.

Organized forensic dentistry has incorporated the concept of disseminating community awareness of this scientific portion of dental practice.¹² In doing so, it will assist the general dentist to ascertain the need for an appropriate referral or when the necessity exists, to function correctly as the initial responding health care professional.

With increasing frequency, forensic odontology is being applied in a variety of cases of civil and criminal adjudication, including identification, homicide, abuse, fraud, malpractice, professional misconduct and liability. **To request a printed copy of this article, please contact** / George A. Gould, DDS, 6101 Puerto Drive, Rancho Murieta, Calif., 95683.

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COMMENTARY



Dental Reimbursement: Helping Victims Smile Again Catherine A. Close, JD

ABSTRACT

By educating themselves and their staff members about services for crime victims, dentists play a crucial role in helping crime victims receive the care they need. When a crime victim needs dental work, they may be unaware of the other assistance available through the Victims Compensation Program. Dental care made possible through compensation helps victims begin to heal.

PURPOSE OF PAPER

A close personal encounter with violence can cause pain too deep for words. Feelings of anger, guilt, sadness, despair, and helplessness are typical. Shock, numbness, and denial are also common reactions.

A victim's financial security may be threatened after a violent trauma. Victims often miss days at work in the aftermath of a crime, and difficulty concentrating can cause job performance to suffer. Trauma can overwhelm a victim's sense of control, connection, and meaning. A crime victim may have a hard time asking for help, but this is a time when getting help can make all the difference. he California Victim Compensation and Government Claims Board (board) has been helping victims of crime get through tough times since 1965. Authorized

by Government Code Sections 13950 et seq, the Board's Victim Compensation Program (VCP) is the largest and oldest in the nation and has paid out more than \$1 billion in assistance to crime victims.

Between June 30, 2002 and July 1, 2003, the VCP received 61,430 applications from California crime victims or their family members. During the year, the board paid out more than \$117 million in compensation to crime victims and family members to reimburse them for a variety of expenses incurred as a result of a crime. The VCP paid nearly \$1.8 million dollars in dental expenses during that time.

How do Crime Victims Get Help?

Victims are assisted throughout the state by a large network of helping professionals. A victim's first contact may be with a domestic violence shelter,



Author / Catherine A. Close, JD, is interim executive officer for the State of California's Victim Compensation and Government Claims Board. She previously served as chief counsel to the board and has provided legal advice to the board members,

executive director, and program managers on all legal issues affecting the board's victim compensation, government claims, and administrative programs, as well as the Revenue Recovery and Compliance Division.

Restoring a Smile – One Victim's Story

She was assaulted as she was leaving a convenience store one spring evening. The attacker hit her in the mouth with a beer bottle.

"I had two teeth completely knocked out. I felt very violated. The incident hurt my self-esteem regarding my appearance because of my smile. I was really depressed about it and didn't want to return to work until my teeth were fixed. I worked with the public, so I would have to smile and talk all of the time. The dentist fixed everything, and I was able to return to work quickly and go to court with confidence. I am always passing on information about the Victim Compensation Program. I'm very grateful to them. I got support from them emotionally and financially. For a while, I was really depressed and (VCP) helped me a lot."

rape crisis center or a victim assistance center. Each of California's 58 counties is home to a victim assistance center. In some counties, the center is in the district attorney's office, in some it is in a county probation department, and a few victim assistance centers are private non-profit agencies. These centers are a resource to help crime victims access compensation. Advocates can help victims fill out applications and gather bills, receipts, and police reports to help speed the process. Victims can also mail in their applications or apply on-line at www.victimcompensation.ca.gov. Many victims find out about the program through brochures and applications they find in the office of their dentist, doctor, or mental health counselor.

The VCP provides help for California residents regardless of where the crime occurred, and for nonresidents who become victims of violent crime within California. The program can also assist a crime victim's spouse, child, parent, sibling, grandparent, grandchild or household member. Victims of crimes resulting in physical injury or threat of physical injury, as well as victims of most sexual assault and child abuse crimes, can apply to the program.

Compensation payments may cover medical and dental bills; the cost of a funeral or memorial service; wage loss for a surviving victim or loss of support for legal dependents of someone who

Many victims find out about the program through brochures and applications they find in the office of their dentist, doctor, or mental health counselor.

has been killed or disabled; mental health counseling for a victim and family or household member; crime scene cleanup of a homicide; some home security improvements or relocation expenses; job retraining for a disabled victim; and home or vehicle modifications for a disabled victim. The program cannot pay for the replacement of property that is lost or destroyed because of a crime except for medically necessary items such as dentures, eyeglasses, and assistive devices.

There are a few requirements that must be met in order to qualify:

■ A victim must cooperate with the investigation of the crime and conviction of the perpetrator.

■ Anyone participating in the

crime is not eligible for the program.

■ Anyone involved in events leading to the crime does not qualify for the program.

■ Anyone who is incarcerated, or on probation or parole for committing a felony, cannot be paid by the program for expenses while incarcerated or on felony probation or parole.

■ Applications must be filed within one year of the date the crime occurred, although an application filed after that date may be accepted if there is good cause.

Emergency awards may also be requested.

By law, the VCP is the "payer of last resort." If any other sources of reimbursement are available for the applicant's crime-related losses, for instance, if the victim has health insurance or is covered by workers' compensation, those sources must be used before the VCP can begin to cover the victim's losses. Applicants are responsible for informing the VCP of all reimbursement sources for their losses, including:

■ Medical/health, dental, or vision insurance

■ Public program benefits (Medi-Cal, unemployment insurance, or disability benefits, etc.)

- Auto insurance
- Workers' compensation benefits
- Court-ordered restitution
- Civil lawsuit recoveries

Help in a Hurry

He was sitting in his car, waiting for his girlfriend. The attacker came up to him and pistol-whipped him with a gun. His jaw was broken and he needed dental work. He went to an emergency room that same day and needed maxillofacial surgery. The VCP paid for the dental work that he would not have been able to afford.



Helping A Child Move On

She was a little girl, riding in the car with her family when a drunken driver hit them. Her mother was killed and the rest of her family injured. She suffered a broken jaw and her face was disfigured. She needed oral and maxillofacial surgery. The program helped pay for the dental work to repair her injuries. Dental care helped heal her physical wounds, and the program also assisted her in finding a counselor to help her cope with her emotional pain.

How Can Dentists Work With the VCP to Help Crime Victims?

Usually when a victim needs dental work as a result of a crime, that crime has just occurred. The victim may be uncertain about compensation program benefits or how they work. The dentist can make a referral to the local victim assistance center if the victim has not yet applied for compensation, or call the advocate at the center who is working with the victim if there are questions. Victims and providers can also call the VCP directly at (800) 777-9229 to find out more about compensation benefits. Filing an application is simple.

Sometimes a victim may not realize he or she needs dental work until some time has passed. In cases of domestic violence, a victim may be prevented from getting timely medical treatment by his or her abuser. Anytime a patient shows up in a dentist's office with a problem that can be attributed to a crime, it is worth a call to a local victim assistance center or to the VCP to help a victim apply for compensation. Even in a case where an arrest has not been made, or an offender is not prosecuted for some reason, a crime victim may still be eligible for compensation benefits.

How Does a Provider Obtain Payment from the VCP?

In 22 victim assistance centers, the board contracts to operate claims processing centers or joint powers units (JPs). Teams of compensation specialists at the board office in Sacramento also process claims.

The VCP can pay a bill in one of two ways: by reimbursing the victim or by paying the provider directly. Because

Anytime a patient shows up in a dentist's office with a problem that can be attributed to a crime, it is worth a call to a local victim assistance center or to the VCP.

most dental and medical expenses due to injuries suffered in a crime are unexpected expenses, victims usually cannot pay the bills directly. Providers themselves submit most bills received by the program.

When a dentist submits a bill for payment, a verification letter is mailed to the dentist to complete and return. This verification letter asks whether the service is crime-related and to what extent. The dentist will also notify the board in this letter of any payments received so far by either the victim or another insurance source.

The board does not pre-authorize dental treatment. Treatment bills are submitted and then approved for payment. Treatment plans are still helpful, however, for showing the board how

the treatments are necessary as a result of the crime. Provider bills are then sent to the board's billing service. Like most "third-party" payers, such as insurance companies, the board generally pays bills at a lower rate than the billed amount. At the present time, dental bills are reimbursed at the California DentiCal Program rate. A provider who accepts payment from the board for services to a crime victim, cannot accept any payment from another source that would exceed the maximum rate set by the board for that service. In other words, when a provider accepts a victim compensation payment, that represents payment in full, and the victim cannot be held accountable for any additional amount for that service.

The victim is notified which expenses the board is able to pay and how much will be paid. If the victim disagrees with any of the decisions that have been made, he or she can appeal the decision, returning the notice with an explanation and supporting documents, if needed.

Bills can usually be processed within two weeks up to a month after the time they are received. However, processing can take longer, depending on the number of bills the program has received from throughout the state. Sometimes other factors, such as communication with insurers or other third-party payers, can delay a payment. A provider can help obtain prompt payment by answering any request for information from the program as soon as possible. Once payment is authorized, the provider should receive a check from the State Controller's Office seven to 14 business days later.

The VCP is made possible by the collection of fines levied on persons convicted of crimes in California. The VCP receives no support from the state's general fund. The U.S. Department of Justice Office for Victims of Crime also provides funding through the Victims of Crime Act, which is supported through fines paid by federal criminals.

The Restitution Fund, which finances the VCP, is sustained through the combined efforts of judges, district attorneys, county revenue collection staff, corrections professionals, and restitution specialists. Restitution fines, restitution orders, penalty assessments, and diversions fees paid by state and federal offenders make the VCP possible.

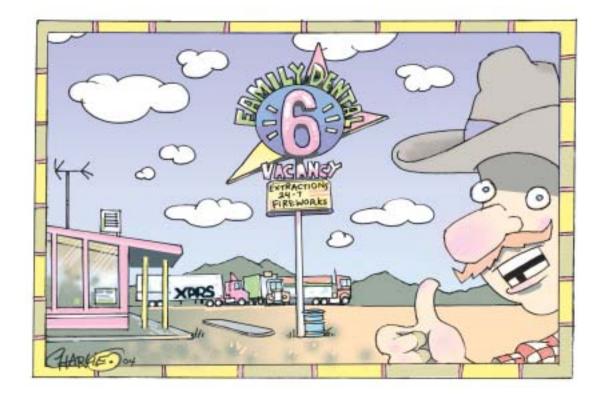
Summary

When dentists help victims return to work by restoring a smile, healing a man's jaw as he recovers from an attack, or correcting the disfigurement of a little girl injured in a tragic car crash, they are not just helping their patient's body to heal; they also have a role in helping their patients recuperate from the psychological trauma caused by crime. By simply educating themselves and their staff members about services for crime victims, dentists play a crucial role in helping crime victims receive the care they need. Dentists can receive more information about the Victim Compensation Program by calling the program or accessing the board's Web site: www.victimcompensation.ca.gov. Posters and compensation applications are available free of charge.

When a crime victim needs dental work, they may be unaware of the other assistance available through the VCP. The program also compensates victims for mental health care expenses to treat emotional trauma. Please refer these patients to VCP. They can either contact their local victim assistance center or call the VCP directly at (800) 777-9229. Dental care made possible through compensation helps victims begin to heal.

To request a printed copy of this article, please contact / Catherine A. Close, JD, Victim Compensation Board, 630 K St., Sacramento, Calif., 95814

Frill-Free Dentistry ... And Don't Forget Your Own Bur





Dr. Bob

e're still under 20 bucks for a cleaning here at Family Dental 6, but we've taken the artificial flavoring out of the pumice. We don't charge for frills like colored bibs and brandname facial tissues. Bring a towel of your choice and an empty cup. If you want a particular rinse, the vending machine has several choices for under a dollar.

Here at Family Dental 6 you can expect a fairly clean room on almost every visit, except for the bathroom that we have eliminated because, after all, you're only going to be here for 30 minutes unless you want to wait for the dentist to show up. We promise never to scrape your teeth with that annoying scraper thing that causes all the bleeding and you won't experience that awful taste from rubber gloves, because we don't use them.

We try to hold costs down at Family Dental 6, so don't expect all those fancy features like disposable needles and insurance forms. In fact, we won't bother you with needles at all; you can bite on a piece of rubber eraser if you have one when the going gets troublesome. Most of our patients bring their own burs and diamonds, although our slightly used ones are available at extra cost at the check-in counter.

Unlike those other high-priced dental Continued on Page 433



Continued from Page 434

"If it ain't broke, don't fix it" and we won't unless it's profitable and doesn't involve much effort.

offices, we don't have a bunch of people standing around doing nothing, so when you arrive just walk right in and find a chair. We leave the front door propped open with a brick so the air can circulate a little and dry up the mold.

Everybody has been X-rayed at one time or another, so if you have any old X-rays lying about at home, particularly if any of them feature actual teeth, bring them along and we will help you guess what your problem might be.

The thing is, if a mouth that's free of disease and containing a lot of unrealistically white teeth is all that's important to you, go ahead and visit one of those super deluxe dental offices where the pressure is extreme to submit to procedures you never heard of to replace things that don't even hurt all that much.

Here at Family Dental 6, our motto is: "If it ain't broke, don't fix it" and we won't unless it's profitable and doesn't involve much effort. And we won't send you out chasing all over town to stand in line at some expensive specialist's office. Our own people might be able to patch it up themselves. Remember, dentistry doesn't have to be costly. At Family Dental 6, a simple extraction can usually solve the problem and we absolutely guarantee it won't return to that tooth again.

We'll leave the operating light burning for you, and you try to stay out of trouble by not brushing so often. CDA