

## Dental Hygiene Specialization: The “Focused Factory” Concept in Nonsurgical Periodontal Therapeutics, Part 2

In pioneering ways to increase delivery of quality care, a growing number of dental hygienists are choosing to concentrate exclusively on treating patients with chronic periodontitis. Instead of treating patients with varying needs, these dental hygienists focus on perfecting the outcomes of the nonsurgical periodontal care they provide. They call themselves periodontal therapists. They have no official credentials, but the demand for periodontal therapists is increasing because a rising number of dentists and patients have discovered the value of their specialization.

Part 1 of this 3-part series, which ran in the January 2004 issue of *Contemporary Oral Hygiene*, introduced the Focused Factory concept, a model for achieving specialization in nonsurgical periodontics. Borrowed from the manufacturing industry, the medical profession has used the Focused Factory concept with highly successful outcomes by practicing to perfection one core competency and addressing specific patient needs. Many nationally renowned centers in cardiology and oncology, among others, have been built by narrowing the focus of expertise by using the Focused Factory concept. Because of the various quality control and capacity issues presented in Part 1 of this series, the time may have come for using this concept in general practice settings that seek to practice evidence-based nonsurgical periodontics. Use of the Focused Factory concept in these practices may significantly increase the quality of care we render while simultaneously yielding greater rates of clinical efficiency.

Part 2 will begin by looking at a real-life example of a Focused Factory environment in medicine. Part 2 will also explore how elements of the Focused Factory concept can be applied to specialization in nonsurgical periodontal therapeutics and by introducing an ideal 1-week schedule of a seasoned periodontal therapist so that readers might begin to understand the intensity involved when periodontics becomes our exclusive focus of care.

### A Real-Life Example

Harvard Business School uses Shouldice Hospital as the quintessential case study in a Focused Factory concept applied to health care. Canada's Shouldice Hospital is an internationally recognized mecca of external abdominal wall hernia repair. The Shouldice technique is acknowledged as the gold standard in hernia repair, a procedure that has been refined over 55 years.<sup>1,2</sup> During World War II, Dr. Edward Shouldice was

called to serve as a medical examiner for army recruits. He found that many young men were willing to serve in the army but were denied enlistment because of hernias that needed to be repaired. Contributing his services at no fee, Shouldice started performing an innovative method of surgery, perfecting the repair of hernia defects by overlapping the margins of 3 distinct layers of groin muscles. The end result is that the muscular wall of the abdomen is reinforced.

This innovative surgery resulted in the induction of many recruits, who had formerly been denied. After the war, the demand for this innovative surgery soared as delighted GIs returning from war boasted of their quick and complete hernia repairs performed by Shouldice. It was then that Dr. Shouldice opened his first hospital dedicated solely to external abdominal wall hernia repair.<sup>1,2</sup>

Today, Shouldice Hospital has 89 beds. Although there is an anesthesiologist on staff, most hernia repairs are done with a sedative, analgesic, and local anesthesia. Most primary hernia repairs take an average of 45 minutes. The hospital performs an average of 30 hernia operations daily, with complication and infection rates less than 0.05% and an overall recurrence rate of 1% on more than 270,000 hernia operations performed since 1945.<sup>2</sup> Shouldice has a postoperative rehabilitation program designed (along with the specialized surgical technique) to enable patients to resume normal activities with minimal interruption and discomfort. While the average total time off work for a hernia repair averages 8 days, Shouldice can boast that many of their patients frequently return to work in just 2 to 3 days. The “Shouldice experience” extends beyond the skill of surgeons to total integration of the business system, which includes tracking patients throughout the years to measure their success.<sup>1,2</sup>

Shouldice's narrow focus on practicing to perfection one clearly defined process has allowed for a level of success most general hospitals have a difficult time duplicating. This example can be

applied to what might be achieved in nonsurgical periodontics if specialization of care is instituted in a general practice environment.

### The Elements of the Focused Factory Concept Applied to Health Care

Some of the characteristics of a Focused Factory operation in health care include<sup>1</sup>:

- **paying attention to consumer-patients.** This includes valuing patients' time and providing them with the value-added, pragmatic information they need to make decisions about treatment and manage their health care status. Helping them to help themselves is important because they want to be in control of their own bodies. A successful disease management program will empower disease victims to care for themselves.
- **a penchant for focus.** Concentrating on perfecting the technical aspects of managing a chronic disease to achieve and sustain optimal therapeutic outcomes over the long-term is essential to success. This includes painstaking accuracy in clinical technique and a knowledge base that is current in scientific evidence and the ability to apply it.
- **integrating operating systems** (ie, clinical and business aspects) carefully to ensure that each part of the patient's visit reinforces the other parts. This includes essential contributions from both clinicians and business personnel. It is important to recruit the right kind of employees, train them, assign accountability, measure their performance, and give them a financial incentive for increasing productivity. In dentistry, not every dental hygienist wants to specialize in periodontics and not every staff employee has the team commitment necessary to work in a Focused Factory setting.
- **investing in and using technology wisely.** Investment decisions for technology that are based on enhancing quality of care (eg, magnification) and productivity (eg, diamond-coated ultrasonic microinserts and digital radiography), and not solely based on the technology's marketing potential, represent a Focused Factory strategy.
- **being ethical about managed care.** This includes not denying health care services to people who need them. A recent study of the difference in general practices' patterns of referral to periodontists in 1980 compared with 2000 calls attention to the relatively high level of existing periodontitis that is left untreated.<sup>3</sup> The



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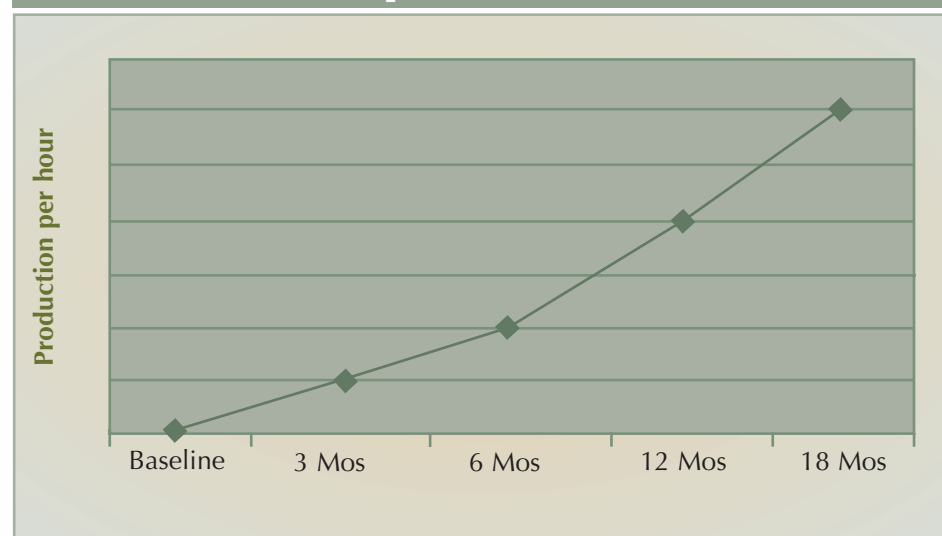
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**Figure 1—The Ideal 1-Week Schedule of a Periodontal Therapist**

	3-4 Days/Week	1 Day/Week
8-10:00	Case Type II/III 4 quadrants S&RP 4 quadrants antimicrobial irrigation Application of desensitizing medication, patient education	Case Type IV 4 quadrants S&RP 4 quadrants site-specific antimicrobial [CASEY : antimicrobial what ?] 4 quadrants antimicrobial irrigation. Application of desensitizing medication; patient education
10-11:00	Periodontal maintenance	
11-12:00	Posttreatment re-evaluation; patient self-care review	
12-1:00	Lunch	Lunch
1-2:00	Case Type II/III 4 quadrants S&RP	Periodontal maintenance
2-3:00	4 quadrants antimicrobial irrigation Application of desensitizing medication; patient education	Periodontal maintenance
3-4:00	Posttreatment re-evaluation; patient self-care review	Periodontal retreatment with site-specific antimicrobials
4-5:00	New patient comprehensive periodontal evaluation, risk assessment, FMX	New patient comprehensive periodontal evaluation, risk assessment, FMX

*S&RP = scaling and root planing; FMX = full-mouth x-ray*

**Figure 3—Relative Production Potential p/hour in the Transition to Specialization**



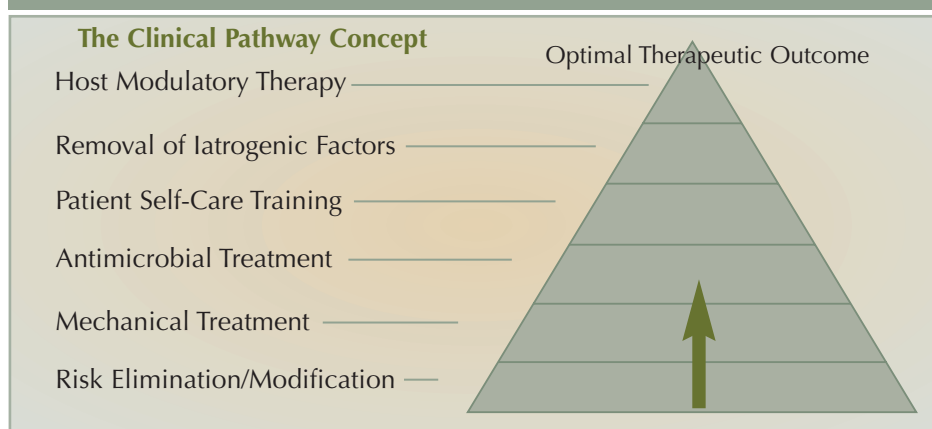
researchers suggest that this may be a result of patients' lack of access to care, poor economic status, and managed care. A true Focused Factory operation will be efficient enough to be able to provide all patients the health care services they need.

- **measuring results.** I agree with McGuire and Scheyer's recent guest editorial in the *Journal of Periodontology*, "Many of today's referring doctors can be strongly influenced to delay their referrals and maintain their revenue stream with soft-tissue management programs that have not created strict guidelines for outcome assessment and have not delivered definitive periodontal care."<sup>4</sup> What gets

measured gets done. Health care providers cannot hold themselves out as experts if they cannot demonstrate successful achievement of certain clinical end points. Paying attention to negative outcomes of care allows us to refine the technical aspects of providing the highest caliber of health care. For periodontal therapists, this means accurate assessment of baseline clinical data and implementation of strict guidelines for assessment of clinical outcomes to determine whether patients are trending toward greater health or inflammatory progression.

- **a high volume of the same procedural service mix** to allow for technical repetition that results in

**Figure 2—The Common Components of a Clinical Pathway for Treatment of Chronic Periodontitis**



increased competencies, quality of care, and production rates. What we know is that practice not only makes perfect, but it also reduces costs. The cost reductions that emerge from repetition are known as the *learning* or *experience curve*. Cost reduction occurs as technicians gain experience and there are fewer wasted movements or missteps that increase costs.

Dental hygienists who specialize in nonsurgical periodontics and see only periodontal clientele have the opportunity to focus entirely on refining their technical skills. This repetition and the intensity of their experiences results in greater proficiency and less chair time to perform the same procedure than conventional dental hygienists.

My personal experience as a periodontal therapist and coaching others is that dental hygienists who specialize have significantly less fatigue because they are actually seeing fewer patients each day and using excellent equipment. In addition, their rate of professional burnout is significantly less because of the opportunity they have to use their intellectual abilities, which ultimately translates into greater professional fulfillment.<sup>5</sup>

- **organizing the health care operation** not by what health care providers can offer, but by what the patient needs. Focused Factories contain all the resources needed to provide the best, most convenient care needed by the patient. This includes self-care products and the services of a multidisciplinary team who can work together to achieve a clear, patient-centered objective. With periodontal patients, this would include the on-site availability of affordable self-care products, smoking cessation programs, nutritional counseling, referrals to dental specialists for care of more complex cases,

and referrals to allied health providers, such as medical specialists who collaboratively incorporate treatment strategies targeted at periodontal-systemic links.

### Periodontal Therapist's Ideal 1-Week Schedule

Figure 1 is what I suggest as the core ideal 1-week schedule for a periodontal therapist.<sup>5</sup> It is important to point out that definitive therapies (ie, scaling and root planing) are performed "One Stage"—at 1 appointment time. (For information related to the use of "One Stage" scaling and root planing, readers are directed to the research of M. Quirynen and colleagues.<sup>6</sup>)

This kind of progressive schedule can only be accomplished by narrowing your focus exclusively to developing expertise in nonsurgical periodontal therapeutics. Concentrating on perfecting and refining a clinical pathway for achieving and sustaining optimal therapeutic outcomes in treating chronic periodontitis will net greater quality of care and increased production capability (Figure 2).

As stated in Part 1 of this series, when we move from providing the wide range of preventive and periodontal services customary to the conventional hygienist model to specialization in nonsurgical periodontics, our proficiency level and efficiency rates increase because of volume and repetition. The schedule in Figure 1 is not accomplished overnight.

Figure 3 represents the *experience* or *learning curve* referred to above that seems to typify many general practices that use periodontal therapists in a Focused Factory scenario. It typically takes about 18 months to reach optimal production from the time an office begins transitioning from general practice to specialization.<sup>5</sup> The transition includes the clinician's learning curve and the ability of the business staff to support the

inevitable increase in workflow that accompanies progressive periodontal therapeutics within a general practice environment.<sup>5</sup>

Transition to this kind of practice does not just take place in the clinical areas—it is critical that the business systems be totally integrated. Business personnel who are responsible for master scheduling, financial case pres-

entation, insurance authorizations and claims, accounts receivable and billing, periodontal maintenance intervals and recare systems (which is exponentially increased), customer service, and promotion of retail products must support the work of clinicians to make the transition successful.

I also advise that dental hygienists who are practicing as periodontal

therapists be assigned a dedicated dental assistant at 50% of a full-time equivalent position who can record data during comprehensive evaluations, take radiographs, help patients update their medication list and risk assessments, perform patient education, provide instrument sterilization, and prepare the operatory. Some practices allow dental assistants to

perform subgingival irrigation, coronal polishing, give postoperative instructions, and fluoride treatments. It is worthwhile to check your state practice act [**CASEY: Do you mean “law” instead of “practice act”?**] to determine what kind of expanded duties are permissible for a dental assistant and appropriate within this kind of clinical setting.

## Conclusion

Not all hygienists are interested in periodontics specialization. There are other areas of specialization that are equally as challenging and rewarding, including pedodontics and restorative dentistry.

Hygienists who exclusively practice as periodontal therapists consistently achieve optimal therapeutic end points that lead to professional satisfaction, patient loyalty, and higher compensation levels. They practice at this level because their employers—the dentists—recognize the significant clinical and financial rewards that come with a collaborative practice with a periodontal therapist.

The Focused Factory concept is a reasoned approach to transitioning general practices into comprehensive, nonsurgical periodontal disease management. In the March issue of *Contemporary Oral Hygiene*, Part 3 of this series will discuss some of the hurdles to the periodontal therapist model of care and make recommendations for a practice's transition to a Focused Factory environment. **CON**

## References

1. Herzlinger RE. *Market-Driven Health Care: Who Wins, Who Loses in the Transformation of America's Largest Service Industry*. New York, NY: Perseus Books Group; 1999.
2. Harvard Case Study—Shouldice Hospital. Dec 1998. Available at: <http://www.shouldice.com/Harvard.htm>. Accessed Jan 7, 2004.
3. Cobb CM, Carrara A, El-Annan, et al. Periodontal referral patterns, 1980 vs 2000: a preliminary study. *J Periodontol*. 2003; 74(10):1470-1474.
4. McGuire MK, Scheyer ET. A referral-based periodontal practice—yesterday, today, and tomorrow. *J Periodontol*. 2003;74:1543.
5. Hein C. Personal consulting experience. Arnold, Md: PointPerio, LLC; 2000-2003.
6. Quirynen M, De Soete M, Dierickx K, et al. The intra-oral translocation of periodontal pathogens jeopardizes the outcome of periodontal therapy. A review of the literature. *J Clin Periodontol*. 2001;28(6):499-507.