Innovations in Family Medicine Education_

Joshua Freeman, MD, Feature Editor Alison Dobbie, MD, Feature Editor

Editor's Note: Send submissions to jfreeman3@kumc.edu. Articles should be between 500–1,000 words and clearly and concisely present the goal of the program, the design of the intervention and evaluation plan, the description of the program as implemented, results of evaluation, and conclusion. Each submission should be accompanied by a 100-word abstract. Please limit tables or figures to one each. You can also contact me at Department of Family Medicine, KUMC, Room 1130A Delp, Mail Code 4010, 3901 Rainbow Boulevard, Kansas City, KS 66160. 913-588-1944. Fax: 913-588-2496.

Smiles for Life: A National Oral Health Curriculum for Family Medicine. A Model for Curriculum Development by STFM Groups

Alan B. Douglass, MD; Wanda Gonsalves, MD; Russell Maier, MD; Hugh Silk, MD; Nancy Stevens, MD; James Tysinger, PhD; A. Stevens Wrightson, MD

The Society of Teachers of Family Medicine Group on Oral Health released Smiles for Life: A National Oral Health Curriculum for Family Medicine in October 2005 to address a need for high-quality residency and medical school curricula in an area of documented physician knowledge deficit. This article describes the background, planning, fund-raising, development, dissemination, and impact of the curriculum. Lessons learned, particularly in the areas of long-distance collaboration, fund-raising, and marketing are reviewed with a goal of serving as a model for future curriculum development efforts.

(Fam Med 2007;39(2):88-90.)

A major activity of Society of Teachers of Family Medicine (STFM) groups is curricular development. This provides the 450 family medicine residencies and 125 family medicine medical school departments with highquality instructional materials developed collaboratively within our specialty. However, the process can be daunting.

Oral health training is generally lacking in both undergraduate and graduate medical education,¹ has substantial public health implications,^{2,3} and is an area of physician knowledge deficit.⁴⁻⁶ This article presents the development, implementation, and impact of Smiles for Life: A National Oral Health Curriculum for Family Medicine, developed by the STFM Group on Oral Health in response to that need as a model for future curricular projects.

The Impetus

At the April 2004 STFM Annual Spring Conference, four groups of family medicine educators unknown to each other presented oral health education materials demonstrated in peer-reviewed studies to be effective educational interventions.⁷⁻⁹ The STFM Group on Oral Health was formed at that meeting to merge the materials, disseminate them as a complete curriculum, and coordinate future educational endeavors in oral health.

From the Family Medicine Residency Program, Middlesex Hospital, Middletown, Conn (Dr Douglass); Department of Family Medicine, Medical University of South Carolina (Dr Gonsalves); Central Washington Family Medicine Residency Program, Yakima, Wash (Dr Maier); Family Medicine Residency Program, University of Massachusetts (Dr Silk); Department of Family Medicine, University of Washington (Dr Stevens); Department of Family and Community Medicine, University of Texas Health Sciences Center at San Antonio (Dr Tysinger); and Department of Family Medicine, University of Kentucky (Dr Wrightson).

Planning

The steering committee (this paper's authors) met for the first time at the STFM October 2004 Northeast Regional Meeting to outline the curriculum, assign development teams for each module, and appoint a project leader and editor (Dr Douglass). An aggressive 1-year timeline was set to allow residency programs 6 months of access to the materials before implementation of a new Family Medicine Residency Review Committee requirement for oral health education in July 2006. The group then applied for preliminary endorsement of Smiles for Life as an official STFM project.

Fund-raising

The steering committee recognized that a project of this magnitude could only be accomplished with external funding. A \$41,000 budget was developed that provided author honoraria, steering committee travel assistance to intensive work sessions at the 2005 STFM Annual Spring Conference, technical assistance, and curriculum production, distribution, and marketing.

A two-page document summarizing background, curriculum outline, potential impact, and budget was used to inform potential funders. STFM and the University of Washington became the project's first supporters by allowing use of the beta site and then the newly opened Family Medicine Digital Resources Library (FMDRL). Foundations and others that had previously supported oral health education and were located in communities where steering group members had done work were identified, approached, and followed up with in a coordinated fashion by the person most likely to make a connection. Commitments for full funding were secured over 3 months, largely due to the development of relationships among steering group members and representatives of local foundations.

Material Development

Distillation of existing educational material with extensive content overlap into cohesive modules was largely done at a distance. Only one development team had both members in the same state. Extensive use of clinical photographs produced PowerPoint files in excess of 50 megabytes that exceeded the capacity of institutional e-mail systems. Using the FMDRL to upload and download files was critical to project success.

Review Process

The editor revised all materials for consistency of presentation and to eliminate redundancy. Draft modules were presented for public comment during the April 2005 STFM Annual Spring Conference. Further editing based on participant comments was then performed both by the development teams and the editor, and speaker notes were added. Three dentists with experience educating physicians, an educational specialist, and an outcomes specialist reviewed the final drafts. The curriculum was then reviewed by the STFM Communications Committee and approved as an official STFM product.

The Final Curriculum

The core curriculum released in October 2005 consisted of four PowerPoint modules: The Relationship of Oral to Systemic Health, Adult Oral Health, Child Oral Health, and Oral Emergencies. Accompanying materials included pretests and posttests, program and learner evaluations, resources for further learning, and an implementation guide. In September 2006, a fifth PowerPoint module titled Oral Health and the Pregnant Patient was released along with patient education materials, including posters and handouts, physician pocket guides, and handheld computer applications. A sixth PowerPoint module on topical fluoride application is anticipated in the spring of 2007.

Dissemination

The steering committee decided that Smiles for Life should be provided to all US osteopathic and allopathic family medicine residency programs and family medicine medical school departments. Materials were posted on the FMDRL in October 2005. Since many educators were unfamiliar with the justinitiated FMDRL, compact discs were mailed in November 2005. As Internet download technology improved and demand developed for the materials from specialties outside of family medicine, the group developed its own Web page at www.stfm.org/oralhealth.

To maximize awareness and adoption, e-mails announcing the curriculum were distributed via all the major family medicine listserves. An article describing the curriculum was published in the STFM Messenger, and links to the curriculum were placed on national oral health education Web sites. Seminars on implementing the curriculum were presented at all major STFM meetings, including the Northeast Regional Meeting, the Predoctoral Education Conference, the Conference on Families and Health, and the Annual Spring Conferences in late 2005 and early 2006.

Impact

A comprehensive evaluation of the impact of Smiles for Life on family medicine education will be conducted in 2007. However, it is clear that Smiles for Life has been widely adopted. Based on FMDRL downloads, Smiles for Life is being used in some manner in at least 270 institutions. The authors know of at least 20 medical schools in 11 states that have incorporated the materials into their core curricula. Smiles for Life materials have formed the core of statewide oral health physician education initiatives in Connecticut, Massachusetts, Rhode Island, Washington, Kentucky, and Colorado. A number of oral health Web sites have posted positive reviews and links to the curriculum.

Lessons Learned

This project has generated a number of meaningful lessons:

• There is tremendous power in group collaboration toward a shared goal.

• A timeline with milestones centered around national meetings is effective.

• Projects of this magnitude require external financial support.

• Successful fund-raising depends on a clearly articulated vision and a network of funder relationships.

• Collaboration of family medicine authors with specialty consultants provides balanced perspective.

• The FMDRL is essential for long-distance collaboration and curricular distribution to the global family medicine community.

• Curricula are best adopted when accompanied by complete speakers' notes, references, and an implementation guide.

• Effective marketing and dissemination are critical.

• Meeting program committees should promote synergy in reviewing proposals on new and innovative topics. *Authors' Note:* All Smiles for Life materials can be downloaded at the FMDRL Web site (www. fmdrl.org) and the group's Web page (www.stfm.org/oralhealth).

Acknowledgments: This project received financial support from Washington Dental Services Foundation, Connecticut Health Foundation, South Carolina Department of Health, The Robert Wood Johnson Foundation, Delta Dental of Massachusetts Foundation, and Central Massachusetts Oral Health Coalition.

The content included in this article was presented at the following meetings: the 2005 Society of Teachers of Family Medicine (STFM) Annual Spring Conference in New Orleans, the 2005 STFM Northeast Regional Meeting in Hershey, Pa, the 2006 STFM Predoctoral Education Conference in Charleston, SC, the 2006 STFM Conference on Families and Health in Austin, Tex, and the 2006 STFM Annual Spring Conference in San Francisco.

Corresponding Author: Address correspondence to Dr Douglass, Middlesex Hospital, Family Medicine Residency Program, 90 South Main Street, Middletown, CT 06457. 860-344-6488. Fax: 860-344-6650. adouglass@midhosp.org.

References

- Ahluwalia KP, Yellowitz JA, Goodman HS, Horowitz AM. An assessment of oral cancer prevention curricula in US medical schools. J Cancer Educ 1998;13(2):90-5.
- US Department of Health and Human Services. Oral health in America. A report of the Surgeon General. Rockville, Md: US Department of Health and Human Services, National Institute of Dental and Craniofacial Research, National Institutes of Health, 2000.
- Mouradian WE, Wehr E, Crall JJ. Disparities in children's oral health and access to dental care. JAMA 2000;284(20):2625-31.
- Lewis CW, Grossman DC, Domoto PK, Deyo RA. The role of the pediatrician in the oral health of children: a national survey. Pediatrics 2000;106(6):E84.
- Lewis CW. Oral health in the pediatric practice setting: a survey of Washington State pediatricians. J Public Health Dent 2004;64(2):111-4.
- Krol DM. Educating pediatricians on children's oral health: past, present, and future. Pediatrics 2004;113(5):e487-92.
- Douglass JM, Douglass AB, Silk H. Infant oral health education for pediatric and family practice residents. Pediatr Dent 2005;27:284-91.
- Gonsalves WC, Skelton J, Smith T, Hardison D, Ferretti G. Physicians' oral health education in Kentucky. Fam Med 2004;36(8): 544-6.
- Mouradian ME, Reeves A, Kim S, et al. A new oral health elective for medical students at the University of Washington. Teach Learn Med 2007, in press.