A Review of Pediatric Dentistry Program Websites: What Are Applicants Learning About Our Programs?


Abstract: The purpose of this study was twofold: 1) to examine website content provided by U.S. and Canadian pediatric dentistry residency programs, and 2) to understand aspects of program websites that dental students report to be related to their interests. Sixty-eight program websites were reviewed by five interprofessional evaluators. A thirty-six-item evaluation form was organized into 1) program descriptive items listed on the American Academy of Pediatric Dentistry (AAPD) website (n=21); 2) additional program descriptive items not listed on the AAPD website but of interest (n=9); and 3) items related to website interface design (n=5). We also surveyed fifty-four dental students regarding their interest in various aspects of program descriptions. The results of this study suggest that pediatric dentistry residency programs in general tend to provide identical or less information than what is listed on the AAPD website. The majority of respondents (76 percent) reported that residency program websites would be their first source of information about advanced programs. The greatest gap between the available website information and students’ interests exists in these areas: stipend and tuition information, state licensure, and program strengths. Pediatric dentistry residency programs underutilize websites as a marketing and recruitment tool and should incorporate more information in areas of students’ priority interests.

Dental school and residency program websites are efficient and cost-effective means of providing up-to-date information to prospective applicants. Unlike printed brochures, these websites can be updated easily and deliver interactive multimedia content. While the use of dental school websites by applicants has been reported, little is known about how residency program websites across dental specialties are utilized by students during their application processes.

The Department of Pediatric Dentistry at the University of Washington established the Leadership Education in Pediatric Dentistry (LEPED) program to strengthen leadership roles in education, research, public health, and public service. An explicit goal of LEPED is to recruit residency applicants who are potentially interested in pursuing a career in academic dentistry. This initiative was in response to the nationwide shortage of faculty members in academic dentistry. Ten percent of the total number of vacant academic dentistry positions is reported to be in pediatric dentistry. Eighty-two percent of pediatric dentistry chairpersons reported that 38 percent of their available positions went unfilled. This trend is largely explained by few dental seniors considering a career in academic dentistry immediately after graduation, as well as lack of information available to students regarding academic dentistry as a potential career choice.

In order to highlight academic strength in the LEPED program, a new program website was proposed for better marketing the program, particularly focusing on attributes related to academic dentistry, such as research competencies and requirements,
faculty research profiles, current trainee research activities, and graduate career paths. As part of our effort, we sought to learn about the type of information other programs make available on their websites. Therefore, we conducted a review of pediatric residency program websites for understanding the programmatic attributes and specific descriptions pertaining to academic dentistry that are presented on the sites. As part of this review, we consulted program descriptions presented on the American Academy of Pediatric Dentistry (AAPD) residency program site and examined whether programs’ own websites tended to replicate AAPD content or offered additional programmatic information. We also surveyed third- and fourth-year dental students at our institution to understand their method of obtaining information regarding a residency program and define aspects of residency program websites that students report being of interest to them. After reporting on those results, this article provides suggestions for improving and optimizing program website content with a particular emphasis on academic dentistry recruitment.

Methods

Website Evaluation

We used the American Academy of Pediatric Dentistry (AAPD) website (www.aapd.org/training/) and the American Dental Education Association Postdoctoral Application Support Service (ADEA PASS) website (http://web.adea.org/webapps/EPS/) for identifying U.S. and Canadian pediatric residency programs. After accounting for programs without websites or inaccessible websites, we compiled a final list of sixty-eight sites that were available as of June 1, 2008.

The evaluation of the program websites involved the following steps. First, we developed an evaluation instrument to document detailed program characteristics. The content of the instrument consisted of three parts: 1) program descriptive items listed on the AAPD website (n=21); 2) additional program descriptive items not listed on the AAPD website that were of interest (n=9); and 3) items related to website interface design (n=5). The AAPD program descriptive items included program attributes such as program length, curriculum, clinical experience, faculty, fellowship information, etc. Examples of additional program descriptive items not listed on the AAPD websites but included in the review were academic environment, current resident profiles, and graduate career profile. Web interface design features included search functions, navigational structure, and use of multimedia.

Second, an interprofessional team of five evaluators reviewed sixty-eight program websites as well as corresponding program descriptions on the AAPD website. The team consisted of a pediatric dentistry faculty member, a medical educator, a dental student, an undergraduate student, and a residency program coordinator. The evaluators recorded on the evaluation forms whether the program websites offered identical, less, or additional information compared to the program information listed on the AAPD site.

Third, in order to ensure consistency in applying the evaluation instrument during the review, all reviewers were assigned common sites, completed the forms individually, and participated in a group discussion to discuss the review experiences. This discussion resulted in improving the clarity of evaluation items and finalizing the evaluation form. Subsequently, each evaluator reviewed approximately seventeen websites, randomly assigned to each person.

Finally, two authors (JYL, JL) reviewed all sixty-eight sites to confirm the evaluators’ results and reconcile any discrepancies identified from the review of the evaluators’ submissions.

Student Survey and Data Analysis

In addition to the website review, we surveyed third- and fourth-year dental students in an attempt to understand key sources of information students rely on when considering a residency program and to define specific components of residency program websites that they consider to be of interest to them. A cross-sectional survey was administered using the University of Washington online survey tool during the spring quarter of 2008. Survey items were identical to the content of the web evaluation instrument (Appendix 1), except that excluded from the survey were items related to web interface design features. Students were asked to select items of interest to them when considering a residency program. A human subjects approval was obtained from the university’s Internal Review Board.

Based on the methodology reported in a previous study,6 we recorded the presence or absence of each evaluation item and compiled the data in a spreadsheet (Excel 2008, Microsoft, Redmond, WA). Students’ survey data were also downloaded into the
spreadsheet for analyses. We report descriptive statistics as follows: 1) percentage of program websites that include identical or less content compared to the AAPD site; 2) percentage of program websites that include additional content compared to the AAPD site; 3) total percentage of program websites; and 4) percentage of students reporting individual evaluation content area to be of interest to them.

Results

Table 1 presents both the web review results and student survey findings. Of the 110 third- and fourth-year dental students, fifty-four (49 percent) completed the survey. Forty-three percent of the responding students reported that they were interested in postgraduate training, with 37 percent unsure and 20 percent not planning to pursue additional training.

In terms of specialties of interest, 48 percent selected AEGD (Advanced Education in General Dentistry) or GPR (General Practice Residency), followed by pediatric dentistry (24 percent), endodontics (20 percent), oral surgery (19 percent), orthodontics (17 percent), prosthodontics (11 percent), public health dentistry (7 percent), and oral pathology (4 percent). The majority of respondents (76 percent) indicated that residency program websites would be their first source of information about advanced programs, followed by consultations with dental school faculty members or specialists (69 percent), discussion with current residents (61 percent), and specialty websites (57 percent).

We summarized the percentage of sites that offered identical or less content compared to AAPD content, additional content compared to AAPD content, and the total percentage of websites. These results were compared with findings from the student

<table>
<thead>
<tr>
<th>AAPD Descriptive Items (n=21)</th>
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<th>Percentage of Program Websites with Additional Content Compared with AAPD Site (n=68)</th>
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<td>Clinical Experience</td>
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<td>83</td>
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<td>Program Director</td>
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<td>41</td>
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<td>Didactic Experience</td>
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<td>Participation in ADEA PASS&lt;sup&gt;a&lt;/sup&gt;</td>
<td>43</td>
<td>18</td>
<td>60</td>
<td>57</td>
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<tr>
<td>Program Faculty</td>
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<td>Stipend and Tuition</td>
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<td>Program Strengths</td>
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<td>80</td>
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<td>Research Requirements</td>
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<td>Participation in NMS&lt;sup&gt;b&lt;/sup&gt;</td>
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<td>49</td>
<td>61</td>
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<td>Teaching Experience</td>
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<td>25</td>
<td>56</td>
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<tr>
<td>Fellowship Information</td>
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<td>2</td>
<td>7</td>
<td>19</td>
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<tr>
<td>Average</td>
<td>28</td>
<td>17</td>
<td>45</td>
<td>51</td>
</tr>
</tbody>
</table>

<sup>a</sup>American Dental Education Association Postdoctoral Application Support Service  
<sup>b</sup>National Matching Service
On average, 28 percent of the sites offered identical or less information compared to AAPD content; less than 20 percent made available additional information beyond what is presented on the AAPD website (Table 1). Overall, descriptive items addressed by less than 50 percent of program sites included research requirements, participation in the National Matching Service, teaching experience, state licensure, and fellowship information. Items covered more in depth on the program sites compared to the AAPD site included application information, curriculum, didactic experience, and research requirements. We found the most gap between the available website information and students’ interests in the following content areas: stipend and tuition information (35 percent of difference), state licensure (31 percent), and program strengths (28 percent).

For items not included on the AAPD site, we found that resources such as professional associations were covered by 41 percent of the websites, followed by academic environment (26 percent), living environment (24 percent), graduation requirements (12 percent), and housing information (10 percent) (Table 2). Few sites included information on the current resident profiles (9 percent), patient population demographics (6 percent), or frequently asked questions about the program (4 percent). None of the sites described career profiles of graduates. Overall, students’ interest in these content areas was moderate to high (range: 26 percent to 72 percent).

When examining website interface design, we found that not all websites used features such as a table of contents or site map for presenting content organization, search fields, site modification dates, and navigational structure to help users move between screens. Only 3 percent of the sites used multimedia such as videos or animations for presenting program information.

### Discussion

Evidence exists that medical residents increasingly base their application decisions on the quality and content of information available on program websites. However, little is known about how dental applicants use residency program websites when considering a program. By conducting a comprehensive review of pediatric dentistry websites, we have documented a wide spectrum of programmatic descriptive items that are included on the websites, particularly attributes related to academic dentistry such as research requirements, teaching experience, and fellowship information. The dental students we surveyed reported that residency program websites were their primary source of information for learning about a program. However, our review showed that pediatric residency program sites tended to offer little additional information on detailed program characteristics. This finding raises a question regarding

| Table 2. Evaluation of additional program website content/design and results of student survey, by percentages in each category |
|-------------------------------------------------|-----------------|-----------------|
| Content Descriptive Item | Percentage of Program Websites (n=68) | Percentage of Students Indicating Interest (n=54) |
| Living Environment | 24 | 72 |
| Frequently Asked Questions | 4 | 72 |
| Academic Environment | 26 | 70 |
| Patient Population Demographics | 6 | 59 |
| Current Resident Profiles | 9 | 56 |
| Graduation Requirements | 12 | 56 |
| Housing Information | 10 | 52 |
| Career Profile of Graduates | 0 | 37 |
| Resources (e.g., Professional Associations) | 41 | 26 |
| Average | 15 | 56 |
| Website Interface Design Feature | | |
| Content Organization Using Table of Contents, Site Map | 41 | N/A |
| Search Function | 38 | N/A |
| Site Modification Date | 34 | N/A |
| Clear Navigational Structure | 31 | N/A |
| User Survey on Site Quality | 16 | N/A |
the unique role a program website should serve as a marketing tool beyond what is currently presented on the AAPD site. Our findings point to the need to understand the information needs of potential applicants and actively maintain the program websites that offer updated information.

Recruitment websites targeting military dentists may offer good examples for advertising and marketing residency programs. Many aspects of military dental careers are easily accessible through their promotional websites. In addition, the websites tend to offer clear navigation structures, interactive design elements, promotional videos about current trainees, message boards, and online chats with virtual guides or advisors.

Limitations of our report are noted. First, our study is limited to pediatric dentistry, and the reported findings cannot be generalized to other dental specialties. Second, the administration of the survey involved a relatively small number of respondents. Third, we did not ask the students to indicate their interests in academic dentistry as a potential career choice. Therefore, we cannot highlight any patterns of responses offered by students who may be seeking academic vs. private sector careers.

Our goal was to understand the scope and type of information presented on residency program websites that can point to ways in which we can revamp our own program website, particularly content related to the program’s strengths in academic dentistry. The degree to which the quality and comprehensiveness of residency program websites affect applicants’ decision making in choice of program is not clear. However, our review points to areas of content and interface design regarding future applicants’ needs that developers of residency program websites may want to consider in the design process.

REFERENCES

APPENDIX

Student Survey Items in Residency Website Content

Q1. What is your current level of training?
   a. 3rd year  
   b. 4th year  
   c. Other (specify)

Q2. Are you interested in pursuing advanced dental education via residency training?
   a. Yes  
   b. No  
   c. Not sure, will decide later

Q3. If you answered yes or not sure, which specialty(ies) would you consider?  
   (Select as many options as needed.)
   a. AEGD or GPR  
   b. Endodontics  
   c. Oral Surgery  
   d. Oral Pathology  
   e. Oral Radiology  
   f. Orthodontics  
   g. Pediatric Dentistry  
   h. Prosthodontics  
   i. Public Health Dentistry  
   j. Other

Q4. Which of the following would be your primary source(s) of information about the advanced programs that interest you?  
   (Select as many options as needed.)
   a. American Student Dental Association (ASDA)  
   b. American Dental Association (ADA)  
   c. Specialty websites (e.g., American Association of Orthodontists, American Academy of Pediatric Dentistry, American Association of Oral and Maxillofacial Surgeons)  
   d. Program websites (e.g., University of Alabama at Birmingham Department of Orthodontics, University of Southern California Endodontics Program)  
   e. Counseling with dental school faculty members or specialists  
   f. Talking with current trainees

(continued)
Q5. From the following list, please checkmark items that would be of interest to you in considering an advanced program.

- Contact info
- Program length and number of positions
- Program type
- Application
- Program description
- Curriculum
- Stipend and tuition
- Facilities
- Admissions
- Strengths
- Faculty
- Program director
- Accreditation
- State licensure
- Participation in National Matching Service
- Participation in ADEA PASS
- Only U.S. citizens from ADA-accredited schools
- U.S. citizens from foreign dental schools
- Non-U.S. citizens from foreign dental schools
- Clinical experience
- Didactic experience
- Research requirements
- Teaching experience
- Fellowship information
- Current trainees’ stories
- Multimedia
- Current resident profiles
- Academic environment
- Living environment
- FAQ
- Housing information
- Patient population demographics
- Percentage of graduates pursuing academic, private careers, etc.
- Other related resources, links to professional associations/organizations
- Graduation requirements

Q6. Please provide any comments you may have about this survey.

Thank you very much for your participation.