Multisite Survey of Pediatric Residents’ Continuity Experiences: Their Perceptions of the Clinical and Educational Opportunities

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ABSTRACT. Objectives. To survey a large group of residents from different institutions to delineate whether there are significant perceptive differences pertaining to the clinical and educational strengths and weaknesses of their continuity experiences by the 3 types of continuity sites.

Background. The residency review committee requires a 3-year continuity experience for pediatric residents. Residents receive this experience at a variety of practice sites: hospital-based sites (HBS), community health centers (CHC), and private practices (PP)/health maintenance organizations (HMOs).

Design/Methods. Continuity clinic directors who attended the Ambulatory Pediatric Association Continuity Clinic Special Interest Group at the 1999 annual Pediatric Academic Societies Meeting were invited to participate in this cross-sectional study. Thirty-six agreed and distributed a 60-item questionnaire to their residents at the end of the academic year. The questionnaire addressed quality and quantity of the educational and patient care experiences, overall satisfaction, and future career plans.

Results. Of the 1167 categorical residents (71%) who returned the questionnaire, 28% were postgraduate level (PL)-1s, 34% were PL-2s, and 37% were PL-3s. Ninety-four percent of the 36 programs had residents in HBS (n = 807 residents), 58% in CHC (n = 106), and 69% in PP/HMO (n = 254). Compared with other groups, residents in HBS were more likely to report having seen patients more than once, being involved during patients’ hospitalizations, taking phone calls from patients, and perceiving that the parents identified them as the primary care provider. HBS and CHC residents felt more autonomous and were more likely to believe that they were advocates for their patients, compared with PP/HMO residents. The number of patients seen per session was greater in PP/HMO, whereas residents in PP/HMO were more likely to perceive that they had received the right amount of exposure to practice management and billing issues and the appropriate amount of nursing and office support. Although numbers of newborn visits were reported as adequate across sites, residents in HBS and CHC believed that they did not see enough adolescents. The majority of residents at all sites agreed that their preceptor was a good role model, was available for questions, and delivered the appropriate amount of teaching and feedback. Approximately two thirds of residents from all sites were satisfied with their experience and believed that it was preparing them for their future career.

Conclusions. All 3 types of continuity sites have both strengths and weaknesses. No single type of continuity site met all expectations for clinical care or training. Most residents at all 3 types of sites reported overall satisfaction and believed that their continuity experience helped to prepare them for future career goals. The residency review committee, in collaboration with pediatric continuity educators, needs to prioritize what constitutes the essential experiences in resident continuity practices and to reemphasize that the ongoing relationship is an important component of the continuity experience.

The continuity experience in its present form became a mandatory part of pediatric residency training in 1990. Guidelines were further defined in 1997 regarding numbers of patient encounters and resident patient panels. The residency review committee (RRC) is a committee of the Accreditation Council of Graduate Medical Education that makes recommendations to the Accreditation Council of Graduate Medical Education who then provide a standard of governance for all residency training programs in the United States referable to program requirements. Each discipline has its own set of requirements. Compliance with requirements is determined during the inspection process of programs and facilities, review of documentation by the faculty, and direct discussion with individual members of the faculty and the housestaff.

One of the major RRC requirements for pediatric residency training is a 3-year continuity experience. As developed in the RRC guidelines, a continuity experience consists of a recurring and longitudinal, clinical/educational exposure to pediatric primary care. The RRC requires a continuity experience one half day per week throughout all 3 years, with an additional one half-day session suggested. The core aspects of this training experience, as suggested by the RRC, include monitoring the biopsychosocial as-

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psects of growth and development from birth through adolescence; promoting health and preventing disease; managing acute and chronic medical conditions; and tailoring assessment and management to individual, family, and environmental circumstances. Learning about practice management and functioning as a member of a health care team are other integral aspects of the continuity experience. Fundamental to the principle of continuity training is that each pediatric resident will develop a patient panel for whom he/she assumes primary responsibility for delivering and coordinating pediatric health care. Therefore, it is essential that patients in this panel be seen by their continuity house officer on a regular and continuing basis, rather than on a single occasion. Ideally, residents should be able to participate in their patients’ care during hospitalizations, acute illnesses, and other circumstances to facilitate and coordinate services, such as specialty referrals.1

To meet those educational goals, each resident should be exposed to a patient population sufficient in number and adequate in diversity of age and diagnosis to develop generalist competencies. Based on input from the Ambulatory Pediatric Association (APA) and the Association of Pediatric Program Directors, the RRC provided guidelines for recommended number of patient visits per session and total patient panel size.1 Residents at the postgraduate level (PL)-1 level should see 3 to 6 patients per session, PL-2 residents should see 4 to 8 patients per session, and PL-3 residents should see 5 to 10 patients per session, in a setting conducive to efficient patient evaluation and management. Patients are generally recruited from a number of settings including the normal newborn nursery, neonatal intensive care unit, emergency department, inpatient services, general pediatric clinics, and subspecialty clinics. It is suggested that patient panels include individuals with chronic disease in addition to those that are healthy, so that residents develop skills in case management and coordination of care.1

When the RRC required a pediatric continuity experience, most programs, initially, placed residents in hospital-based clinics for this experience, adapting the clinical system to meet the new requirement. Many programs encountered difficulties in meeting the new requirement because of insufficient patient numbers, insufficient availability of faculty preceptors, and unresponsive clinic systems not originally designed for continuity training. More recently, programs have begun to expand into community sites for the continuity experience, using private practices (PPs), health maintenance organizations (HMOs), and community health centers (CHCs).2–4 This expansion was done in an effort to meet RRC requirements for patient visits, to draw on a larger group of faculty, and to offer settings more akin to future practice experiences.3 Although the RRC provided specific recommendations for patient numbers and panel sizes as objective evaluative criteria, recommendations or guidelines for other aspects of the continuity educational experience have not been appropriately provided.5,10,11

Past studies have compared experiences both within and across programs.6,14,15 However, concern has been expressed regarding generalizability of results across pediatric training programs. Two studies14,15 queried pediatric residency program directors nationally, whereas the study by Dumont-Driscoll et al6 relied on the perceptions of continuity clinic directors and obtained information about operational issues. Comparisons among residents from a large number of training programs have not been previously undertaken, despite the fact that resident feedback is important in the educational process, both in meeting the RRC guidelines and as adult learner participants in their own education. The objectives of this study were to survey a large group of residents from different institutions to delineate whether there are significant perceptive differences referable to clinical and educational strengths and weaknesses in the 3 types of continuity settings.

**METHODS**

A cross-sectional study was conducted at multiple pediatric training continuity sites. Continuity directors attending the 1999 annual Continuity Special Interest Group meeting (Annual Pediatric Academic Societies Meeting, San Francisco, CA) were invited to participate. One additional continuity director who was not at the meeting was informed about the project through a colleague and participated. A 60-item resident questionnaire was distributed to these individuals. This questionnaire had been developed and piloted during the previous academic year at one of the participating sites (Johns Hopkins Children’s Center). Before distribution, the questionnaire was further refined by the steering committee members of the Continuity Special Interest Group. The individual continuity directors were each responsible for distribution of the questionnaire at the end of the academic year to the residents within their own programs. Institutional review board approval was obtained as required by each participating institution. Questionnaires were completed anonymously from May 1999 through August 1999 and returned to a central site to facilitate data entry and analysis, while maintaining program confidentiality. The data were analyzed across types of continuity settings rather than across individual institutions.

Only categorical pediatric residents in their first, second, or third year of training were included. Those in medicine/pediatrics programs, other combination programs, or residents beyond their third year of training were excluded because it was believed that their experiences and focus would significantly differ from the categorical residents.

**Study Outcomes**

The study outcomes were targeted toward categories mentioned in the RRC guidelines.1 These included: 1) the numbers and types of continuity patients; 2) practice management including ancillary support; 3) continuity issues, longitudinal care and responsibility as a primary care provider; 4) teaching opportunities; 5) preceptor qualities; and 6) resident satisfaction and perception of preparation for their future careers. Four types of questions were asked. Questions identifying the quantity of patients scheduled and seen required multiple choice responses with 4 potential choices (1–3, 4–6, 7–10, or >10 patients per session). In regard to what proportion of time teaching activities took place, there were 4 potential responses (<25%, 25%–50%, 51%–75%, or >75% of the time). Answers to these questions resulting in a response >50% of the time were collapsed and reported. Reactions to questions in the form of statements were elicited with responses on a 1- to 5-point Likert scale, with 1 corresponding to strongly disagree and 5 corresponding to strongly agree. Responses of 4 and 5, agree and strongly agree, were collapsed and reported. Questions were asked about educational and clinical opportunities and whether these occurred the appropriate amount of time. Responses to these ranged from 1 to 5 on a Likert scale with 1 being too little; 3, just about right; and 5, too much. Responses of 3, which corresponded with the right amount of time, were tabulated and reported.
Respondents were asked to consider the 1998–1999 academic year when answering questions.

Data Analysis

The sample size calculation was based on the variable of resident continuity with their patients. Based on a baseline estimate of continuity in hospital-based sites (HBSs) of 60% from past studies,7,13,16 we estimated a 10% difference in continuity comparing HBSs and nonhospital sites to be a clinically significant difference. Using a 2-tailed \( \alpha \) of 0.05 and a power of 0.80, the estimated sample size would be 387 in each group. The original plan was to compare HBSs and non-HBSs (CHC, PP, and HMO). After the preliminary analysis, it was apparent that the CHC sites differed from the PP/HMO sites in several ways. Thus, analysis was performed comparing the 3 different types of sites, HBS, CHC, and PP/HMO. Analyses performed by level of resident training will not be presented in this manuscript.

Data analysis was performed using the Statistical Program for Social Sciences, Version 7.5 (SPSS, Chicago, IL). Frequencies were calculated along with \( \chi^2 \) and Fisher’s exact test for discrete variables.

RESULTS

Table 1 describes the characteristics of the 36 residency programs (17% of all pediatric training programs nationwide) that participated. Of 1634 possible participants, 1167 responded, yielding an overall response rate of 71% and representing 15% of residents nationwide. The response rate per program ranged from 26% to 100%, with 6 of 36 programs having a 100% response rate. Ninety-four percent of programs (34) had residents at HBSs, which resulted in a total of 807 residents. Fifty-eight percent of programs had 106 residents at CHCs, and 69% of programs used PP/HMO sites, with 254 residents at those sites. PP and HMO sites were combined because they most resembled each other in the preliminary data analysis. There were 190 residents in PPs and 64 residents in HMOs. Sixty-one percent of programs had continuity experiences at multiple types of sites, although only 1 program had residents placed at 2 different sites each week. The map in Fig 1 depicts the geographic locations of the participating continuity sites. There was a scatter of sites nationwide, although there was a clustering in the Northeast and mid-Atlantic regions. Figure 2 demonstrates a fairly comparable distribution of levels of resident training among sites. These differences in distribution were not statistically significant. All items had a response rate of at least 97% except for 1 question.

Figure 3 compares the numbers of patients seen in the different types of continuity practices: HBSs, CHCs, and PPs/HMOS. The proportion of residents who were scheduled for 4 or more patients per session was comparable across sites, but those in PPs were more likely to be scheduled for 7 or more patients (22%, HBS; 17%, CHC; 33%, PP; \( P < .001 \)). In comparing the number of patients actually seen, residents in PP sites were more likely to see at least 4 patients per session (80%, HBS; 78%, CHC; 92%, PP; \( P < .001 \)). Even more striking are the differences across sites of patients seeing 7 or more patients per session (6%, HBS; 5%, CHC; 37%, PP; \( P < .001 \)). When the number of patients scheduled per session was compared with the number seen, differences were found. Those at HBSs and CHCs were more likely to see fewer patients than scheduled, potentially reflecting the reduced show rate at these sites. The residents at PP sites saw a greater number of patients than were scheduled. A small number of residents (4%) at PP sites indicated that patients were never scheduled for them; they only examined either acute care patients or other providers’ patients.

When types of patients were examined (Fig 4), residents in PP were more likely than those in other sites to believe that they saw the right number of adolescents (42% compared with 18% in HBS and 23% in CHC; \( P < .001 \)), and patients from all socioeconomic groups (45% compared with 28% in HBS and 17% in CHC; \( P < .001 \)). However, those in both CHCs and PPs believed that they saw too few patients with chronic diseases. Equal proportions across sites believed that they saw the right number of newborns and had a well-balanced spectrum of patients. Those at HBSs perceived that they were more likely to recruit new patients (54% compared with 31% in CHC and 20% in PP; \( P < .001 \)).

Concerning practice management (Fig 5), residents in PP were more likely to report more opportunities to learn about practice management (41%, PP; 21%, CHC; 20%, HBS; \( P < .001 \)), billing issues, and managed care, but the percentage of residents who believed that they had the right amount of opportunity to learn about these issues never exceeded 41% at any type of continuity site. These differences were statistically significant.

In examining interactions with other staff (Fig 6), those in PPs were more likely to believe that they received the appropriate amount of office support (65% in PP, 46% in CHC, 35% in HBS) and nursing support (65% in PP, 51% in CHC, 38% in HBS; both \( P < .001 \)). Although PP provided more appropriate nursing and clerical support, >30% of residents at this type of site did not believe that this was sufficient. Not surprisingly, HBS offered more opportunity for interactions with social workers and subspecialists, but only 42% and 29%, respectively, of residents in HBS believed that this was adequate.

Residents in HBSs were more likely to agree that most encounters were with patients who they had seen previously (58% in HBS, 36% in CHC, 17% in PP; \( P < .001 \); Fig 7). Those in hospital sites reported that they were more likely to be involved with patients during hospitalizations and in the newborn nursery, to take phone calls from continuity patients, and to be involved in decisions about laboratory results (\( P < .001 \)). However, even in HBS, only 58% of residents reported that most encounters were with patients who they had seen previously, only 58% were involved with decisions about laboratory re-

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**TABLE 1. Characteristics of Participating Programs**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Value</th>
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<tbody>
<tr>
<td>Number of programs</td>
<td>36</td>
</tr>
<tr>
<td>Number of resident responses</td>
<td>1167/1634 = 71%</td>
</tr>
<tr>
<td>Mean number of residents per program</td>
<td>45 (18–126)</td>
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<tr>
<td>Programs with continuity at &gt;1 site</td>
<td>61%</td>
</tr>
<tr>
<td>94% of programs with HBSs</td>
<td>( n = 807 ) residents</td>
</tr>
<tr>
<td>58% of programs with CHCs</td>
<td>( n = 106 ) residents</td>
</tr>
<tr>
<td>69% of programs with PP/HMO sites</td>
<td>( n = 254 ) residents</td>
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results, and less than one third were involved with their patients in the hospital, in the newborn nursery, and by answering telephone calls. Residents in PP had the lowest rates on all of these continuity of care indicators, and those in CHCs had rates intermediate between HBS and PP.

Residents at HBSs thought that parents were more likely to identify them as their child's pediatrician (63% in HBS, 44% in CHC, 18% in PP; Fig 8), and they were more likely to believe that they were the primary care provider (66% in HBS, 52% in CHC, 24% in PP; both P < .001). Those in HBSs and CHCs were more likely to believe that they served as advocates for their patients.

Teaching opportunities (Fig 9), such as attending didactic teaching sessions, receiving a handout or article, or receiving teaching points about individual patients, were more likely to occur in HBSs (all P < .01). Also, those in HBSs were more likely to have had the goals and objectives of the experience discussed (P < .01).

Preceptor characteristics were fairly comparable across sites (Fig 10). Residents were equally likely to think that their preceptor was available for help and
teaching, provided feedback, and served as a good role model. However, those in HBSs were more likely to perceive that they received the appropriate amount of autonomy with supervision when caring for their patients (70% in HBS, 62% in CHC, 50% in PP; \( P < .001 \)).

Finally, satisfaction and preparation for future career goals was compared. Approximately two thirds of residents stated that they were satisfied with the experience, with no difference across sites, and approximately two thirds of residents stated that they believed that the continuity experience helped prepare them for their future goals. However, only 72% of residents answered this question, perhaps because it was placed at the very end of the questionnaire grouped among some open-ended questions. If the results of only those who answered the question were tabulated, 90% of residents across groups perceived adequate career preparedness in the continuity experience. There were no differences among sites in the proportion who planned to enter either PP (48% in HBS, 48% in CHC, 53% in PP) or a subspecialty fellowship (29% in HBS, 27% in CHC, 28% in PP).

**DISCUSSION**

Our study demonstrated that residents perceive different strengths and weaknesses at different continuity sites. The major strength of the study is the sampling of residents from a large number of pro-
grams, representing 17% of pediatric programs and 15% of residents nationwide.

The perceived strengths of PPs/HMOs sites that were identified in this study included: 1) more patients seen per session; 2) exposure to a greater number of adolescents; 3) exposure to patients from a broader socioeconomic scope; 4) heightened awareness regarding practice management; and 5) appropriate amount of help from ancillary staff. The identified weaknesses of the PP sites included: 1) too few patients with chronic disease; 2) fewer interactions with subspecialists or social workers; 3) less continuity and exposure to longitudinal care; 4) less perceived responsibility as the primary care provider; 5) less autonomy regarding patient management; and 6) less didactic teaching and discussion about individual patients.

The strengths of the HBSs included residents' perceptions of: 1) more continuity and longitudinal care in seeing patients; 2) greater regard of themselves as the primary care provider and acknowledging responsibility for their patients; 3) their advocacy role regarding their patients; 4) the ability to recruit new patients; 5) appropriate amount of autonomy in patient care; and 6) receiving more teaching in didactic sessions, receipt of handouts, and discussion about individual patients. Weaknesses included: 1) fewer patients seen; 2) less access to the appropriate
Residents at CHCs were most likely to have intermediate responses in most categories, ranking between those in the PPs and the HBSs. Residents at CHCs were as likely as those at HBSs to believe that they served as advocates for their patients and to have too little exposure to practice management. They were as likely as those at PP sites to think that they saw too few patients with chronic diseases, to have too little interaction with subspecialists, and to receive fewer teaching points about particular patients. However, they had better exposure to managed care and better ancillary support than those in HBSs and had better didactic teaching and perceived more autonomy than residents in PP sites.

Residents across sites had similar perceptions: 1) exposure to a well-balanced spectrum of patients; 2) preceptor availability; 3) receipt of appropriate feedback; 4) preceptor as a good role model; and 5) personal satisfaction with the experience and preparation for future career goals.

Our data revealed that pediatric residents tend to receive different types of experience at the different continuity settings. The RRC has specifically mandated a continuity experience, but it has not estab-
lished a definition of continuity,\textsuperscript{5,17,18} despite the existence of many suggestions and formulas.\textsuperscript{13,18–23} True health maintenance and the benefits of continuity, learning the art of medicine, understanding the intricacies of the doctor–family relationship, and following the evaluation of a disease process over time are most easily achieved in an environment where repeat visits can be ensured. The Future of Pediatric Education (FOPE) II report specifically emphasizes the importance of a medical home for patients and that ongoing health maintenance and preventive care are important parts of the responsibilities of future pediatricians.\textsuperscript{24}

Earlier studies have demonstrated increased continuity and perceived responsibility for patients at HBSs compared with other sites.\textsuperscript{3,5,11} The results of this study verify these findings. HBSs have often been developed to address the educational needs of residents. In HBSs, the patients are assigned to a resident and this relationship is well established from the outset, which is more consistent with the standard of pediatric care. Recruiting newborns from the nursery at a home hospital site provides residents with the ability to see these patients in follow-up and on a continuous basis. This early consistency of care is enhanced by supervision guidelines that call for

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\caption{Teaching opportunities.}
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\includegraphics[width=\textwidth]{Fig10.jpg}
\caption{Preceptor characteristics.}
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more frequent visits in the earlier months and years of life.25 The location of the continuity practice at the academic center is also beneficial for continuity of care regarding hospitalizations, subspecialty care, and follow-up of radiologic and laboratory studies, although the proportion of residents who thought that these encounters were sufficient was low at all sites. It is much more likely that a resident will be informed about his/her patient’s admissions or emergency department visits if these occur at the same institution where the resident spends a majority of the time,3 in addition to seeing patients for an acute care visit or being involved in some of the management decisions.16 Academic institutions and HBSs often have contract agreements with the same managed care plans. This tends to make it easier to recruit patients encountered in the emergency department, nursery, or on inpatient services. Because patients at HBSs often are members of underserved populations, the issue of enhanced advocacy is not surprising23,26; this is a competency that is recommended by the RRC.3 Additionally, the FOPE report has emphasized the increased number of children in poverty and the importance of addressing both the needs of this population and the need to increase resident exposure to underserved populations.24

Several studies have emphasized the importance of the relationship that develops between patient and physician when there is continuity. Starfield27 stated that longitudinality is an essential element of good primary care, and Hjortdahl and Laerum28 described continuity as a cornerstone of the relationship. The benefits of continuity have been described: enhanced satisfaction for parents of children with chronic illnesses29, improved understanding of the need for and results of a consultation30; improved appointment compliance with longitudinal care31,32; improved medication compliance31,33,34; and reduced hospitalization rates, episodes of illness, and number of laboratory tests performed.35 Mothers have been found to be more likely to disclose behavioral problems31,34; previously addressed problems are more likely to be addressed again37; and visit satisfaction is greater with the same provider.28,32,36 One needs only to see the relationship between residents as they depart the training program and their continuity patients to appreciate the value of this experience.37–39

Despite these attributes, continuity is difficult to achieve during resident continuity training. Limited by 1 to 2 half-day continuity sessions per week, it is quite challenging to convince patients and parents to wait regarding nonemergent issues. Similar challenges arise in encouraging preceptors to keep residents involved regarding ongoing patient management issues. It is difficult to achieve the type of continuity of care that exists in PP’s, where pediatricians are exclusively devoted to patient care. Even at HBSs, which apparently had the best opportunity for continuity, only 58% of residents perceived that they had continuity and only 63% of them acknowledged their role as a primary care provider the majority of the time. Educators of pediatric residents must emphasize the importance of continuity and longitudinal care for training and, at the same time, determine what degree of continuity is necessary yet realistic to accomplish educational goals.

The finding of a greater number of patients seen per session at PP sites is consistent with data from individual programs.5,7,11 This may reflect higher patient to physician ratios, a greater number of patients presenting for acute care visits, or greater efficiency of the practices. Becoming skilled in seeing many patients enhances efficiency and is a career-rewarding competency. However, numbers of patients seen depends on the complexity of their problems, the paper work and documentation involved, and the efficiency of the practice dynamics. With ancillary help available to carry out some of these tasks, residents should be able to see more patients. This seems to vary by type of site. Although maximizing the number of patient encounters is a laudable goal, data need to be gathered to determine what is the optimum number of patients and patient visits necessary to achieve the educational goals, taking into account office efficiency and patient complexity. Of interest, those in HBSs were more likely to believe that they saw the appropriate number of patients with chronic disease, whereas those in PP’s and CHCs believed that they saw too few. These findings differ from those of Osborn et al15 in which similar numbers of patients with chronic diseases were seen across sites. Although an appropriate balance of healthy children and those with chronic disease is important, longitudinal care of children with chronic disease allows residents to acquire skills in coordination of care, perspective regarding the impact of chronic disease on patients and families, as well as the opportunity to learn about particular diseases. These are all skills that the RRC and the FOPE report endorse.1,24 Working with subspecialists, learning skills to access consultation, and working in multidisciplinary teams with social workers are each quite important for pediatricians. Although these skills may be learned in the inpatient settings, there is a different refinement of the skills when a continuity patient is involved. The resident will need to have an ongoing relationship with the subspecialist or social worker in negotiating plans concerning the patient. PP settings seem to offer less opportunities to acquire and to develop these skills than do HBS and CHC sites.

Residents were more likely to learn about billing issues and practice management at PP sites. Although these issues are important for residents who will later enter a PP setting, none of the sites, including the PP sites, had significantly high percentages in this category. In addition, these issues can probably be learned in venues other than a continuity experience, eg, participation in a month-long elective in a PP setting. Program directors should take note of this and ensure that this important area is included in their respective curriculums. Residents in HBSs were more likely to have attended didactic sessions, received handouts or articles, received teaching points about individual patients, and participated in the discussion of goals and objectives of the experience. APA educational guidelines and curricula40 are more likely to be implemented at sites with structured...
teaching opportunities and a verbal commitment to the process. Additionally, the FOPE II report has endorsed structured curriculum for resident education.24

Residents across sites had similar perceptions regarding their exposure to a well-balanced spectrum of patients, preceptor availability, receipt of appropriate feedback, and preparation for future career goals. All residents gave high ratings concerning their preceptors as good role models, their availability, and receiving the appropriate amount of feedback. Overall, residents were satisfied with their experiences and believed that they were prepared for future career experiences. The continuity experience was valued by residents regardless of career choice, even for those who were not planning to enter a private general pediatric practice. The approach to patients, the development of relationships, and a solid general pediatric knowledge base was relevant to all residents regardless of their future career plans. These data help to emphasize the importance and richness of this experience in residency training.

Limitations

It is important to acknowledge the limitations of this study. All of the responses were based on resident perceptions and self-report. This limitation does not change the validity of the study because it applied across all sites. In future studies, resident perceptions should be compared with normative data from program sites. In addition, as mentioned earlier, resident feedback is important in the development of educational curricula. The designation of the type of continuity site on the questionnaire was made by the resident. There may have been some confusion as to how to categorize a particular site. When this was apparent to the continuity director, the site designation was changed. Program participation in this study was contingent on continuity directors who had attended the Special Interest Group meeting or who had heard about the project. The programs represented in this study may be a self-selected group who put more emphasis on a quality continuity experience resulting in resident perceptions that may be more positive than the norm. Additionally, there may be unrecognized variations within sites of which we are not aware; not all hospital-based clinics are alike any more so than are all PPs. Finally, the scales used in this study have not been previously validated and grouping of responses for this report may have introduced some unanticipated bias.

CONCLUSION

This study reports perceived strengths and concomitant weaknesses of all 3 types of continuity sites. None of the sites met all expectations, and even for most variables regardless of site, an insufficient proportion of sites met the stated goal. This study answered some questions but raised many more. Pediatric educators must move forward and develop guidelines about key factors important to the continuity experience. Hopefully, these data will be used not only to acknowledge the strengths and weaknesses at all types of sites, but also to promote collaboration between members of the RRC and continuity educators to prioritize what are the essential experiences in resident continuity practices and to reemphasize that the ongoing relationship is an important component of the continuity experience.

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