Child Advocacy Training

Curriculum Outcomes and Resident Satisfaction

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Background: Many health problems affecting children today are based in the community and cannot be easily addressed in the office setting. Child advocacy is an effective approach for pediatricians to take.

Objective: To describe pediatric residents' choices of advocacy topics and interventions.

Design: Cross-sectional observational study.

Methods: Residents from 3 pediatric training programs participated in the Child Advocacy Curriculum, which featured standardized workshops and the development of individual advocacy projects. To evaluate the curriculum, project descriptions and material products were analyzed to determine individual advocacy topics, topic themes, and targets of project interventions. Differences among programs were assessed. Residents also completed an anonymous questionnaire assessing their experience with the Child Advocacy Curriculum.

Results: Residents demonstrated a wide range of interests in selecting advocacy topics: 99 residents chose 38 different topics. The most common topic was obesity (13 residents) followed by health care access (9), teen pregnancy prevention (6), and oral health (5). Themes included health promotion and disease prevention, injury prevention, health care access, children with special health care needs, child development, at-risk populations, and the impact of media on child health. The project interventions targeted the local community most frequently (37%), followed by resident education (27%), hospital systems (21%), and public and health policy (15%). The vast majority of participating residents reported a positive experience with the Child Advocacy Curriculum.

Conclusions: The wide range of topics and settings in which residents developed projects illustrates residents' extensive interests and ingenuity in applying needed advocacy solutions to complex child health issues.

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Thirty years ago, Bob Hagerty coined the term new morbidity to describe the rising proportion of child health problems rooted in emotional, social, economic, and environmental conditions.1 Child injury and chronic illness replaced infectious pathogens as leading causes of childhood morbidity and mortality as a result of improved nutrition, sanitation, and medical science. Social disparities in exposure to the new morbidities make their treatment and prevention less a biomedical than a sociopolitical challenge. Across nearly all illnesses, poor health outcomes are closely associated with a declining gradient of family income.2-4 Independent of income status, children from ethnic minorities are more likely than nonminority children to suffer from asthma, heart disease, obesity, diabetes, injury, violence, poor preventive care, and a host of other significant health risks.3,4 Other related root causes of child morbidity include limited access to care, low social capital, low caregiver literacy, and unsafe neighborhoods.7-10 Effectively addressing the new morbidities requires training new pediatricians to perceive themselves not only as clinicians at the bedside but also as advocates in the community.

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While traditional pediatric training uses a biomedical model to teach residents to improve the health of the individual patient in the hospital or office, child advocacy training requires a population-based prevention model to improve child health in the communities where children live and go to school. The pediatrician of the future must be competent in...
both patient-based and population-based models of care. He or she will need to move seamlessly between the “di-
achotomy of patient-based and population-based perspec-
tives.”11
Recognizing the importance of advocacy training to
the improvement of child health, the Pediatric Resi-
dency Review Committee of the Accreditation Council
for Graduate Medical Education (Chicago, Ill) has man-
dated “structured educational experiences that prepare
residents for the role of advocate for the health of chil-
dren within the community.”12 In 2000, the Future of Pe-
diatric Education II reported that “. . . there is still much
to do in the education of pediatricians and parents rela-
tive to the new morbidities.”13
The field of advocacy training for pediatric residents
is emerging and little is known. Many authors cite the
need for pediatricians to act as child advocates,11,13-26 and
others call for resident training in child advocacy.24,27,33
There have been 1 systematic evaluation of the impact
of advocacy training28 and several reports describing ad-
vocacy training.27,30,31,33,35,36 There has been no descrip-
tion of resident preferences for advocacy projects: what
they choose to advocate for and how they choose to ad-
vocate. The goal of this study is to understand what top-
ics and settings residents select when they have unlim-
ted topic and intervention choices. This information can
inform other programs as they develop sustainable ad-
vocacy curricula.

METHODS
We conducted a collaborative descriptive study of the Child
Advocacy Curriculum (CAC) instituted in the pediatric resi-
dency training programs at Stanford (Palo Alto, Calif); the
University of California, San Francisco (San Francisco); and
the University of Miami (Miami, Fla). We analyzed the project
descriptions and material products from individual advocacy
projects and anonymously surveyed residents who partici-
pated in the curriculum between July 2000 and July 2002. The
institutional review board of each institution granted ap-
pearance for the study protocol.

CHILD ADVOCACY CURRICULUM
The CAC was initially developed at Stanford (L.J.C.) and sub-
sequently adapted at the University of California, San Fran-
cisco and University of Miami. The residents were required to
participate in two 3-hour workshops introducing core con-
cepts in child advocacy, perform independent field work dur-
ing the rotations, and finally give a formal presentation to their
peers and faculty. The consecutive workshops reviewed the ba-
sic tools of child advocacy: translating child health problems
into advocacy issues, learning the methods of community
needs assessment and asset determination, practicing applica-
tion of these tools through case vignettes, and reviewing ac-
tual work conducted by pediatric child advocates. A recurring
theme highlighted in the workshops was the unique and natu-
ral role of the pediatrician advocate.

Using the child advocacy tools introduced in the work-
shops, each resident individually selected, developed, and imple-
mented an advocacy project that reinforced advocacy knowl-
edge and skills. First, residents identified and described a
particular community; they assessed its resources and needs
by analyzing available national and regional data and met with
appropriate community leaders (eg, directors of community-
based organizations). Based upon this community mapping, resi-
dents collaborated with 1 or more such individuals or organiza-
tions, with facilitative support from a faculty advisor, to carry
out a feasible advocacy intervention. At the conclusion of the
rotation, each resident described the project to a forum con-
sisting of peers and faculty.

The CAC, although identical in content, was implemented
with some variation into existing required community rota-
tions at each residency program. Overall, no new rotations
were added; instead, residents were given new protected time
in existing blocks to integrate the advocacy activities. Table 1
illustrates how CAC implementation varied between sites,
including variation in faculty time and support, rotation
length, etc.

The faculty directors of the curriculum (L.J.C., L.M.S.,
J.I.T.) were simultaneously directors or associate directors of
the respective community rotations. The directors facilitated
the workshops, provided direction and guidance regarding
identification of community partners and subsequent col-
laboration, and jointly evaluated the effectiveness of the
rotation.

EVALUATION
The 3 main outcomes for this study were individual advocacy
topics chosen by residents, categorization of advocacy topics
by themes, and types of project interventions. We also con-
ducted an anonymous survey of residents after they finished
the rotations to determine satisfaction and perceived barriers
and enablers in conducting individual projects.

The 3 CAC directors individually analyzed the project de-
scriptions and material products (eg, handouts, slide presen-
tations) to determine topic choices (eg, breastfeeding, immu-
nizations) and later discussed them as a group to verify the topics.
The directors, once again, independently categorized each ad-
vocacy topic into broad themes by highlighting major features
and coding key terms. They then participated in multiple group
discussions to conduct de novo thematic analysis and coding
to complete the final categorization process; no existing taxa-
omy was referenced. When discrepancies arose, sequential
discussions resolved differences in interpretation of the de-
scriptions of topics and projects. The resulting taxonomy of top-
ics and interventions reflected the range of resident experi-
ences.

Following the rotation, residents completed an anony-
mous questionnaire where they evaluated the curriculum and
provided demographic information. The results of this anony-
mous survey could not be linked to the individual advocacy
projects.

RESULTS

Ninety-nine residents completed advocacy projects dur-
ing the child advocacy curriculum: 36 residents at Stan-
ford, 24 at the University of Miami, and 29 at the Uni-
versity of California, San Francisco. For resident demographies, see Table 2.

TYPES OF ADVOCACY TOPICS AND THEMES

Thematic analysis yielded 8 major categories of advocacy
topics (Table 3). Health promotion and disease pre-
vention represented 42% of topics. Others topic themes
were injury prevention, improving health care access, ad-
dressing children with special health care needs, opti-
mizing child development, serving at-risk populations, and the impact of media on children. Residents demonstrated a wide range of interests in their selections with 99 residents choosing 38 specific topics. The most commonly selected advocacy topic was obesity (13 residents), followed by health care access (9), adolescent pregnancy (6), and oral health (5). Category of advocacy topic chosen by residents did not vary by residency program ($P = .15$).

**TYPES OF ADVOCACY INTERVENTIONS**

Residents designed advocacy projects to impact 1 of 4 types of populations: community, resident, hospital system, and health policy ($Figure$). Type of population targeted by the project interventions did not vary by residency program ($P = .16$).

Community-based advocacy projects represented more than one third of projects and consisted of a wide range of methods and outcomes. Examples of projects included interactions with youth groups on various topics (eg, conducting focus groups at a juvenile incarceration facility, developing a tobacco cessation program). Schools composed a common community site (eg, dental screening day at 1 school, obesity screening at 5 preschools). Less common were larger-scale, communitywide interventions (eg, publication of “Instructions for Effective Time Out” in a newsletter that reaches more than 13 000 parents of young children).

The second most frequently selected intervention was educational and targeted physicians (27%). A subset resulted in modifications in the resident curriculum (eg, a required palliative care curriculum at Stanford, required participation in prenatal visits and breastfeeding promotion classes for parents at the University of Miami). Other projects involved development and presentation of conferences to improve resident and faculty knowledge (eg, impact of media violence on children, availability of emergency contraception). Laminated reference cards or new web-based resources were frequently introduced and distributed during conferences.

Hospital system change was achieved by residents who modified and improved the settings in which they worked (21%). Examples of such projects included introduction of the Baby Friendly Hospital Initiative at one site and making condoms available in a hospital clinic. Other

### Table 1. Curriculum Characteristics Across 3 Residency Programs

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Stanford</th>
<th>University of California, San Francisco</th>
<th>University of Miami</th>
</tr>
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<tbody>
<tr>
<td>Rotation duration</td>
<td>3 wk</td>
<td>1 mo</td>
<td>1 mo</td>
</tr>
<tr>
<td>Existing rotation</td>
<td>Community pediatrics adolescent medicine</td>
<td>Health of the community</td>
<td>Behavior/development</td>
</tr>
<tr>
<td>Previously existing rotation themes</td>
<td>Health access</td>
<td>Violence prevention</td>
<td>Children with special needs</td>
</tr>
<tr>
<td></td>
<td>Community resources</td>
<td>Health policy</td>
<td>Community and interdisciplinary collaboration</td>
</tr>
<tr>
<td></td>
<td>Health policy</td>
<td>Cultural competence</td>
<td></td>
</tr>
<tr>
<td>Previously existing community site visits</td>
<td>Women, Infants, and Children center</td>
<td>Schools</td>
<td>Homes of patients</td>
</tr>
<tr>
<td></td>
<td>Job training center</td>
<td>Homeless shelters</td>
<td>Schools</td>
</tr>
<tr>
<td></td>
<td>Health van</td>
<td>Domestic violence shelters</td>
<td>Preschools</td>
</tr>
<tr>
<td></td>
<td>Community health clinic</td>
<td>Community health clinics</td>
<td>Parent advocacy group</td>
</tr>
<tr>
<td></td>
<td>Public health nurse home visit</td>
<td></td>
<td></td>
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<tr>
<td>Resident year</td>
<td>PGY1</td>
<td>PGY2</td>
<td>PGY1</td>
</tr>
<tr>
<td>Required rotation</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Additional elective time available for advocacy project</td>
<td>Yes (PGY1, PGY2, PGY3)</td>
<td>Yes (PGY3)</td>
<td>Yes (PGY2, PGY3)</td>
</tr>
<tr>
<td>Faculty leadership</td>
<td>Fellow</td>
<td>Associate professor</td>
<td>Assistant professor</td>
</tr>
<tr>
<td></td>
<td>Community partners</td>
<td>Assistant professor</td>
<td>Community partners</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Primary care chief resident</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Community partners</td>
<td></td>
</tr>
<tr>
<td>Estimated faculty time</td>
<td>30% FTE</td>
<td>30% FTE</td>
<td>20% FTE</td>
</tr>
<tr>
<td>Faculty support</td>
<td>Foundation funding</td>
<td>Clinical teaching staff hours granted to community faculty*</td>
<td>None initially; now foundation funded</td>
</tr>
</tbody>
</table>

*Community faculty are required to demonstrate 40 hours of teaching per year to maintain clinical faculty status in the department.*

### Table 2. Demographic Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men/women</td>
<td>40/59</td>
</tr>
<tr>
<td>Mean age, y</td>
<td>28.4</td>
</tr>
<tr>
<td>Career plan</td>
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<tr>
<td>Primary care</td>
<td>20</td>
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<tr>
<td>Subspecialty</td>
<td>17</td>
</tr>
<tr>
<td>Other</td>
<td>9</td>
</tr>
<tr>
<td>Unknown</td>
<td>14</td>
</tr>
<tr>
<td>Missing</td>
<td>39</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
</tr>
<tr>
<td>Non-Hispanic white</td>
<td>53</td>
</tr>
<tr>
<td>Asian or Pacific Islander</td>
<td>20</td>
</tr>
<tr>
<td>Hispanic</td>
<td>9</td>
</tr>
<tr>
<td>Other</td>
<td>17</td>
</tr>
</tbody>
</table>

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residents helped develop infrastructure to ensure availability of State Children’s Health Insurance Program applications throughout one public hospital. Another project involved the translation and distribution of shaken baby syndrome information in 3 languages.

Policy change on a wider scale was addressed by 15% of the advocacy projects. Interventions included writing letters to government representatives, testifying at local hearings and at the state capitol, and writing editorial columns for local newspapers. Residents at one program helped reestablish county-based funding for the public hospital pediatric ward through public testimony and meetings with members of the county board of supervisors.

RESIDENT SATISFACTION

Residents expressed overall satisfaction with the CAC. In response to the question “Did you enjoy the curriculum?” 93 (94%) of 99 participants responded very positively or positively, 4 provided neutral comments, and 2 expressed frustration. Typical responses included, “I like feeling that I can make an impact on even a small project,” and “It is critical that Pedi residents be taught how to access resources and make changes on many levels for kids. It is a difficult task and well worthwhile.” Both neutral and negative comments cited time constraints, for example, “It was difficult to fit project into framework and timeline.” In addition to these responses, residents at Stanford had the opportunity to evaluate each rotation on a 4.0 scale, allowing comparison of all intern-year rotations. The Community Pediatrics and Advocacy rotation received a 3.66, ranking it fourth highest of 18 total rotations.

The CAC was collaboratively and successfully developed and implemented in 3 distinct residency programs. After participating in standardized workshops, 99 residents completed a wide range of advocacy projects that were categorized into 8 themes. Interventions addressed 4 types of communities: resident and faculty physicians, hospital systems, local communities of families and children, and larger-scale communities (eg, cities, counties, regions). Our evaluation showed that advocacy training is not a “one topic fits all” educational encounter but a more personal experience. Although some clustering occurred around specific topics, 3 or fewer residents selected each of the remaining topics. We hypothesize that residents drew from their clinical or other personal experiences to develop projects about which they felt strongly. We believe that the CAC provides both generic tools and individual approaches that encourage initiative and also provides experiences that will approximate postresidency advocacy experiences and meetings with members of the county board of supervisors.
opportunities. Tracking graduates and describing their further involvement in advocacy projects may describe a more long-term impact of our curriculum.

Comparisons among programs did not demonstrate significant statistical differences in advocacy topics or targets of interventions. These results suggest that pediatric residents share common attitudes and concerns. On the other hand, we did witness instances where the political climate surrounding a residency program influenced the development of advocacy interventions. The announcement of the annual county budget calling for closure of the county's pediatric ward galvanized residents to partner with local child advocacy groups and engage politicians to successfully reconsider budget allocation. Similarly, new passage of statewide legislation to permit pharmacists to dispense emergency contraception inspired the education of health professionals and community health promotion.

Given the limited time and energy of residents during their first 2 years of training, a promising outcome of our collaboration was that many residents developed advocacy projects that engaged communities beyond the health care setting. The projects reflected a strong motivation to move beyond the familiar and the traditional to ensure positive change for pediatric populations in their communities. As stated by Christoffel, "public health advocacy is intended to reduce death or disability in groups of people...and is not confined to clinical settings." Developing effective partnerships with community-based organizations, however, requires innovative training and clear commitment: an appreciation of the population-based perspective of health and skills in needs and resource assessment and coalition building, all of which were provided by the CAC.

We experienced many "thorns among the roses" as we implemented this curriculum. Challenges common to all 3 sites revolved around resident time limitations, faculty time limitations, and varied motivation from the residents. Finding time in a resident schedule was not easy and promises to remain an unremitting challenge; at all sites, obligations including overnight call and clinical commitments interfered with community events. The study was performed prior to the institution of new residency program work-hour rules, which have since restricted the scheduling of off-site experiences.

The second challenge was providing the faculty resources required for proper oversight of the large number of active projects. We developed 2 methods to mitigate this problem. Early in the institution of the CAC, we learned to actively direct residents in establishing attainable goals with discreet end points, allowing project completion of the advocacy project by the rotation's conclusion. Residents initially considered large and unfeasible projects, so we often needed to limit the scope without extinguishing the enthusiasm. This experience is familiar to others. The second method to manage the large number of projects was to create mutually beneficial community partnerships. Mentorship by community-based faculty was critical to the success of this curriculum.

Finally, individual resident enthusiasm varied, as it does with other rotations. Unlike other rotations, the CAC's success was based in large part on the resident's participation. For instance, some residents were passive, waiting for telephone calls from community groups, but others were more active and able to successfully engage community partners. The residents who did not get organized quickly enough had a difficult time completing the rotation's goals.

Despite the CAC being successfully implemented and evaluated in 3 residency training programs, our experiences may not be generalizable because it is not a regional or national sample. Selection bias may play a role as residents with certain interests gravitate toward particular programs. In addition, the time frame of our study provided a cross-sectional snapshot of residents' interests: as the threats to child well-being evolve over time, we would expect resident interests to change. Another limitation was our inability to examine topic and project choice by resident demographic data: the demographic data was obtained anonymously for the resident group as a whole and therefore could not be linked to individual projects, precluding us from delving into the subject of advocacy topic and project choice in an in-depth manner.

Our study determined the feasibility of implementing a collaboratively developed educational curriculum; thus we did not perform formal evaluations of the community experience. Although several community-based organizations have expressed high satisfaction with the projects, we believe that long-term involvement is critical to maintain community trust and support. To this end, academic medical centers must ensure sustainability of these efforts by supporting faculty involvement. Finally, the qualitative analysis was conducted by study authors who were not blinded to the method and aims.

CONCLUSIONS

Pediatric residents at 3 training programs participated in the Child Advocacy Curriculum, where they selected and carried out a wide variety of advocacy projects with the most common theme being health promotion. Residents chose the local community as the most common target for advocacy interventions. Our study demonstrates that pediatric residents, given the appropriate tools for child advocacy, and despite of limited time, will successfully conduct projects that are not limited to health care settings but involve a larger community. Increased insight into residents' interests will lead to a better understanding of topics that captivate tomorrow's pediatricians and reveal their willingness to advocate in many settings.

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