STFM’s National Clerkship Curriculum: CERA Reveals Impact, Clerkship Director Needs

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BACKGROUND AND OBJECTIVES: Consistency is needed in family medicine clerkships nationwide. The Society of Teachers of Family Medicine’s (STFM) National Clerkship Curriculum (NCC) and supporting NCC website have been developed to address this need. A survey was used to measure these tools’ effect and guide future improvements.

METHODS: The Council of Academic Family Medicine’s (CAFM) Educational Research Alliance (CERA) 2012 survey of clerkship directors (CD) was used to answer two research questions: (1) To what extent are clerkships teaching the minimum core curriculum? and (2) What resources do clerkship directors identify as important in their role?

RESULTS: The survey response rate was 66% (88/134). Ninety-two percent of these CDs are aware of the NCC, 74% report having visited the NCC website, and 71% plan to visit it more than once per year in the future. A total of 21.6% strongly agree that their clerkship content matches the NCC. CDs rate the quality of materials on the website as high and place greatest value on materials that can be downloaded and adapted to their clerkships.

CONCLUSIONS: STFM’s NCC website and materials are familiar to CDs although only one in five state their clerkship curriculum matches the NCC minimum core curriculum. The NCC editorial board needs to better understand why so few teach curriculum that closely matches the minimum core. Continued outreach to CDs can answer this question and improve our ability to support CDs as they incorporate the NCC into family medicine clerkships.

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Though most physicians completed a family medicine clerkship during medical school, many cannot accurately describe family medicine. This limits our effectiveness within the health care system. While third-year family medicine clerkships are required in most US medical schools, the content of family medicine clerkships varies widely.1,2 Outside organizations with important roles in our clerkships, such as the National Board of Medical Examiners (NBME), have struggled to understand the content of family medicine clerkships.3 In response to this need for consistency in clerkship curricula, STFM convened a task force charged to define core minimum content all family medicine clerkships should teach.4 The product was a list of competencies organized into five sections: principles of family medicine, acute presentations, chronic diseases, health maintenance and disease prevention, and the role of family medicine. It is not a list of all patient presentations that family physicians competently manage, rather it is a list of the minimum presentations that should be covered in a clerkship. The curriculum document was approved by the Council of Academic Family Medicine (CAFM). A second task force was subsequently convened to develop tools to support clerkship directors in implementing the NCC. This team developed the National Clerkship Curriculum website, available to members at www.stfm.org.5 It houses the NCC objectives, peer-reviewed sample curricula, and sections on educational methods, assessment strategies, faculty development, and tools for clerkship directors (CD). Both efforts were supported by the STFM Foundation.

The NCC website was launched at the annual STFM Conference on Medical Student Education in January 2012.6 Initial feedback was positive, but little is known about how useful the site has been to CDs since that time. To determine whether the curriculum and website are achieving their goals, family medicine CDs...
were surveyed in the summer of 2012. The survey was structured to answer two research questions: (1) To what extent are clerkships teaching the minimum core curriculum? and (2) What resources do clerkship directors identify as important in their role? This paper describes data collected and conclusions drawn.

Methods
This study is an analysis of a survey conducted as part of the Council of Academic Family Medicine’s (CAFAM) Educational Research Alliance (CERA). CERA is a joint initiative of all four major US academic family medicine organizations: the Society of Teachers of Family Medicine, the North American Primary Care Research Group, the Association of Departments of Family Medicine, and the Association of Family Medicine Residency Directors.

Research questions, survey questions, and survey protocol were drafted by members of the STFM Education Committee who had served on NCC task forces and as CDs (SC, BS). These materials were then reviewed by members of the CERA team assigned to this project (CRC, VWP). Revisions focused on shortening and structuring the survey for usability by CDs and statisticians. Final decisions about questions and protocol reflected consensus of all parties.

The CERA survey was designed as an omnibus survey incorporating several distinct subprojects focusing on different topic areas. Family medicine CDs at allopathic medical schools were identified through communication within the STFM Group on Medical Student Education, a group that updates the list of CDs annually. We identified 134 active unique individuals with valid email addresses. The study was approved by the American Academy of Family Physicians Institutional Review Board. Osteopathic CDs were not included in the current survey due to minimal osteopathic school engagement in the NCC development process and the lack of an available database of osteopathic CDs.

The survey was conducted between July 2012 and September 2012. Potential respondents were surveyed electronically with an initial email invitation for participation. This invitation included a personalized greeting, a letter signed by the presidents of each of the four participating organizations urging participation, and a link to the survey. Nonrespondents were sent up to two follow-up emails. Survey questions were structured such that all CD respondents were asked to rank resources they would find helpful, and then only respondents who had visited the site were asked questions about the quality of the content, impact on their curriculum, and anticipated frequency of returning to the site. At the start of the survey, all CDs were asked to “Rank the top three areas that are most important to you in a national family medicine clerkship curriculum website” and a list of options including a free text “other” was offered. Later in the survey, CDs answering yes to “Are you aware of STFM’s National Clerkship Curriculum website?” and “Have you visited STFM’s National Clerkship Curriculum website?” proceeded. Final questions included “The content of our school’s FM Clerkship course MATCHES the Content of STFM’s National Clerkship Curriculum” with response options reflecting agreement on a 4-point Likert scale plus an “N/A” option. The survey is available upon request.

Results
Demographics
The survey response rate was 66% (88/134). Respondent and clerkship characteristics are described in Table 1. Two thirds of responding CDs reported teaching at public medical schools while one third teach at private schools. 15% of CDs have been in the role for only 1 year or less, and 36% have directed their clerkship for 2–4 years. Altogether half of CDs are relatively new. CDs are evenly split between male and female, and the majority are white. Ninety-one percent of clerkships are structured as a block rather than longitudinal.

Awareness and Usage
Ninety-two percent (81/88) of CDs stated they were aware of the NCC, while 3% (3/88) stated they were not. Four CDs did not answer this question. Awareness of the NCC and likelihood of having visited the NCC website did not differ significantly by public versus private medical school, gender of CD, or duration in the CD role (less than versus more than 5 years). These data are available on request. When asked, “How frequently will you use the National Clerkship Curriculum website in the future?” male CDs were significantly more likely than female CDs to respond that they would use the website more than once per year (89% versus 67%). Anticipated frequency of future visits to the site did not differ with duration of having been the CD (greater than or less than 5 years) or with public/private school affiliation.

Extent of Teaching the Minimum NCC Core Curriculum Within Local Clerkships
Data regarding the extent to which CDs report teaching the minimum core curriculum are reported in Table 2. When asked to rate their agreement with the statement, “The content of our school’s FM Clerkship course MATCHES the content of STFM’s National Clerkship Curriculum,” 21.6% strongly agree that their clerkship content matches the NCC. A total of 52.2% of responding CDs agreed or strongly agreed that they have changed the content of their clerkship based on the NCC. Directors of clerkships longer than 4 weeks in duration (26.1% versus 23.1%) and those at private schools (26.9% versus 22.2%) were more likely to report a strong match with the NCC, though these differences did not reach statistical significance; eight CDs did not answer this question.
CD Needs
When asked to “Rank the top three areas that are most important to you in a national family medicine clerkship curriculum website,” CDs placed considerable value on downloadable materials and resources to assist them performing in their CD role and moderate value on educational methodology and evaluation strategies. Liaison Committee on Medical Education (LCME) preparation materials and materials to develop educational research were ranked lower but still valuable. CDs who had visited the website also rated the quality of the resources available, rating all tools as excellent. These data are available upon request.

Discussion
Survey Population
The survey response rate was 66% (88/134), and the ethnicity, gender, and age of responding CDs are similar to prior presentations describing this population, suggesting that our respondent population reflects the actual population of CDs. Age, gender, and ethnicity data allowed us to look for demographics that might bias CDs toward or away from use of web-based resources.

Extent of Teaching
The results of this survey suggest that while most CDs are aware of and have adopted some of the NCC, only one in five report delivering content that closely matches it. This is not at the goal of having a minimum core curriculum within all family medicine clerkships, and STFM should work to better understand this gap while continuing to support CDs implementing the NCC. The limited number of CDs delivering content that closely matches the NCC is a reality that must be kept in perspective by educators who advocate for topic additions to the NCC. If all suggested topics were added, our minimum core curriculum could become too large for clerkships to teach, compromising our priority goal. Until the minimum core is more widely adopted, the size and scope of the NCC should remain limited.

To optimize our strengths of both versatility and consistency, family medicine clerkships should be able to continue teaching non-core content that reflects their unique strengths while also delivering the minimum core NCC. The wording of the question about the “match” of the clerkship curriculum with the NCC may have led 2012 CERA respondents to rate their clerkship as not strongly matching the NCC if they included additional curricula, even if they fully delivered the NCC core. This could introduce bias toward less of

Table 1: Clerkship and Clerkship Director (CD) Demographics

<table>
<thead>
<tr>
<th>Characteristics of Survey Respondents and Clerkships</th>
<th>67% (59/88) public</th>
<th>33% (29/88) private</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of medical school</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Years as CD</td>
<td>15% (13/88) 1 year</td>
<td>36% (32/88) 2–4 years</td>
</tr>
<tr>
<td>Gender of CD</td>
<td>49% (43/88) male</td>
<td>50% (44/88) female</td>
</tr>
<tr>
<td>Race of CD</td>
<td>82% (72/88) white</td>
<td>2% (2/88) black</td>
</tr>
<tr>
<td>Ethnicity of CD</td>
<td>97% (85/88) not Hispanic or Latino</td>
<td>2% (2/88) Hispanic or Latino</td>
</tr>
<tr>
<td>Clerkship mandatory</td>
<td>97% (85/88) yes</td>
<td>3% (3/88) no</td>
</tr>
<tr>
<td>Block clerkship</td>
<td>91% (80/88) yes</td>
<td>9% (8/88) no</td>
</tr>
<tr>
<td>Duration of clerkship</td>
<td>≤ 4 weeks: 50%</td>
<td>5–7 weeks: 17%</td>
</tr>
</tbody>
</table>

Table 2: Match, in Percent, Between Content of School’s Family Medicine Clerkship and NCC by Clerkship Duration and Public/Private

<table>
<thead>
<tr>
<th>Clerkship duration</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤4 weeks</td>
<td>0</td>
<td>3.8%</td>
<td>53.8%</td>
<td>23.1%</td>
<td>19.2%</td>
</tr>
<tr>
<td>&gt;4 weeks</td>
<td>0</td>
<td>2.2%</td>
<td>63%</td>
<td>26.1%</td>
<td>8.7%</td>
</tr>
<tr>
<td>Public school</td>
<td>0</td>
<td>3.7%</td>
<td>59.3%</td>
<td>22.2%</td>
<td>14.8%</td>
</tr>
<tr>
<td>Private school</td>
<td>0</td>
<td>7.7%</td>
<td>57.7%</td>
<td>26.9%</td>
<td>7.7%</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>4.5% (4/88)</td>
<td>53.4% (47/88)</td>
<td>21.6% (19/88)</td>
<td>11.4% (10/88)</td>
</tr>
</tbody>
</table>

NCC—National Clerkship Curriculum
N/A—not applicable
a match. Additionally, eight CDs did not answer the question regarding match, which may have included CDs who had not yet visited the site, potentially biasing responses toward reporting more match than actually exists.

The trend toward greater match in longer clerkships and at private schools may be important. If future surveys document a statistically significant difference in match of curriculum with duration of clerkship, family medicine educators might use that information to argue for longer clerkships. These issues should be addressed on future surveys.

**CD Needs**

CDs identified “clerkship materials that can be downloaded and adapted to my clerkship” and “resources to help me perform as a clerkship director” as top priorities. The priority, “materials that can be downloaded and adapted,” is understandable and actionable now. The NCC website currently contains sample curricula that have been peer reviewed for the “principles of family medicine” competencies. Additional rounds of peer review are needed for the remaining topic areas (acute presentations, chronic disease, preventive care, and the role of family medicine in the health care system). The “role of family medicine” competencies are timely as our health care system realizes family medicine’s impact on improving cost and quality of care.

This should be a priority for curriculum development, as should curricula focused on the patient-centered medical home.7,8 CDs identified “resources to help me perform my role” as moderately important. Future surveys should further define these needs. “Information about educational methods to improve my teaching” and “Information about methods to improve assessment and student evaluation” were also moderately important. This may reflect the complexity of these tasks and the vast content within family medicine clerkships.9,10

The NCC editorial board can review these materials and improve their accessibility to CDs. Future CERA surveys can assess current practices and needs regarding teaching and assessment methods in more detail. Over time, use of comparable student evaluations across clerkships can help us identify best curricula.11,12

**Clerkship Director Engagement**

Osteopathic schools train many future family physicians. These schools’ family medicine CDs were not surveyed as part of the current protocol. Inclusion in future surveys is planned.

**Limitations**

This survey was subjective. CDs are compelled to represent their clerkship as reflecting national expectations, so a bias toward overestimating match of curriculum may occur. Eight CDs chose not to answer the question about their clerkship’s match with the NCC. As a result, selection bias may have introduced overestimation of clerkship match.

This survey was brief and did not specifically ask whether or not individual objectives or topic areas were addressed in each clerkship. This limits our ability to target sample curricula to most needed topics and increase the proportion of clerkships teaching the minimum core. This survey also did not adequately define the meaning of “resources to help CDs perform in their roles” and did not include osteopathic clerkship directors. Future surveys can address these issues.

**Conclusions**

Most CDs are familiar with and use the NCC website, though only one in five strongly agree that their local curriculum teaches the minimum core. CERA survey data suggests that CDs would most value curricular materials that can be downloaded and adapted to their courses. The NCC editorial board should work toward universal delivery of the minimum core curriculum in local clerkships by expanding downloadable resources. Future CERA surveys can more specifically identify areas of NCC not well taught in clerkships.

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**References**