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Integrating Evidence-Based Practice (EBP) Knowledge and Skills into an Undergraduate Medical School Curriculum

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BACKGROUND
Medical students at UNM have learned Evidence-Based Practice (EBP) since the 1990s when they experienced an Evidence-Based Medicine Block during their transition to their clinical years.

When the block was discontinued in 2002, the same training became integrated throughout the first three years of medical school. This integrated approach produced moderate success mostly because of strong support from curricular leaders and the persistence of a small cadre of faculty members.

METHODS
The new Public Health Certificate provides credit toward an MPH degree. The Certificate includes a new two-credit EBP course that weaves together the previously disparate EBP interventions spread throughout the curriculum.

The EBP course begins modestly in the first year. It then intensifies toward the pre-clinical block, and finally receives reinforcement during the clinical years. The first author’s securing a grant to teach Evidence-Based Public Health to public health practitioners throughout this rural state provided insights on how the general EBP concept could unify past Evidence-Based Medicine curricular-based teaching with many core public health concepts.

Table 1 outlines the major EBP training interventions during the first three years of medical school. Although EBP now retains separate course status, the instructors continue to integrate it with the major blocks within the curriculum in order to assure relevance and for opportunities for students to apply EBP knowledge and skills within the broader curricular context.

TABLE 1: EBP Training

<table>
<thead>
<tr>
<th>Month</th>
<th>Content</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Question formulation; statistical data</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>EBP overview; Searching for evidence</td>
<td>3</td>
</tr>
<tr>
<td>21</td>
<td>Intensive EBM skills training, especially critical appraisal</td>
<td>12</td>
</tr>
<tr>
<td>~26</td>
<td>Family Practice Clerkship</td>
<td>6</td>
</tr>
</tbody>
</table>

RESULTS
The first two authors piloted the new EBP course with existing first- and second-year students during 2009 and early 2010. Student test performance was encouraging. Students scored an average of 93% on a hands-on EBP searching formative test during October 2009. Students scored an average of 97% on the hands-on EBP searching skills segment of the summative exam in January 2010.

Student Feedback
During August 2010 the first official incoming class encountered a required and voluntary EBP informatics lab where they learned question formulation and some basic searching skills. Students positively rated this first intervention as part of the new EBP course in the now official Public Health Certificate with all 4 or higher mean ratings on five-point Likert scales.

CONCLUSION
While the preliminary results are promising, more rigorous evaluation protocols are in place to assess the effectiveness of the new course to teach medical students EBP knowledge and skills.

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