between positive affect and treating patients with greater respect. At our own institution, the breakthrough that allowed us to move toward a culture of safety was sharing with practitioners the pain of a mother whose toddler had died from medical errors. This gave our staff an emotional commitment to improving safety.

Care should be both effective and safe. Treating patients with the same respect and regard that we have for family members can motivate greater awareness of the potential risks of treatment and greater personal responsibility for improving safety.

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17 Niedowski N. A mother’s promise: how medical errors took a little girl’s life. Baltimore Sun, December 14, 1993; A-1

Survey on Quality of Training in Pulmonary Physiology During Fellowship

To the Editor:

As pulmonary medicine has grown to include critical care and sleep, fellowship training in the pulmonary function laboratory and physiology has diminished. The Pulmonary Physiology, Function, and Rehabilitation Network surveyed American College of Chest Physicians members to assess the perceived quality of training in physiology.

Of the 637 respondents (18% of surveyed), 30.6% believed that current training in pulmonary physiology was only “fair” or “inadequate” (dissatisfied group). Respondents were more likely to be dissatisfied if in practice < 20 years (33.9% vs 23.4%) [p < 0.03], taught fellows (37.7% vs 23.0%) [p < 0.01], were university based (38.4% vs 24.1%) [p < 0.03], or did not supervise a pulmonary function testing laboratory (34.7% vs 22.1%) [p < 0.01].

Table 1 shows the training quality ratings for 16 clinical areas (columns A and F), importance to current position (column B), and three measures of priorities for training improvement (columns C, D, and E). The quality of training in clinical aspects (column A) was higher than for technical aspects (column F). Areas most important in current position (column B) were also rated highest for training quality (columns A and F). Conversely, subject areas of least importance to current position were least well trained. While this initially suggests appropriate emphasis, a physician is less likely to practice techniques for which they are not well trained.

Priorities for training improvement (columns C to E) are clustered in two areas: (1) areas less well trained during fellowship and less important in current position (sleep, rehabilitation, cardiopulmonary exercise testing); and (2) clinical areas most important in current position and most well trained (ventilator management, spirometry, blood gases, bronchoscopy). This suggests that pulmonologists want to learn more about areas they do most (even if already well trained) but also areas they do least (but see potential for being valuable) and do not know much about.

In conclusion, there is significant dissatisfaction and deficiency with current training in pulmonary physiology. The dissatisfaction is more widespread in those who do the training and in those more recently trained, but all subgroups had a significant minority also dissatisfied. We must develop efficient ways to improve training in clinical pulmonary physiology given the many competing training needs during pulmonary, critical care and sleep fellowships.

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1270

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Table 1—Rating of Clinical Areas for Quality of Training During Fellowship, Importance in Current Work Position, and Priority for Improvement in Training

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Arterial blood gases</td>
<td>4.60 (1)</td>
<td>4.53 (1)</td>
<td>-0.07 (13)</td>
<td>26.7 (7)</td>
<td>21 (6)</td>
<td>4.12 (2)</td>
</tr>
<tr>
<td>Bronchoscopy</td>
<td>4.50 (2)</td>
<td>4.37 (2)</td>
<td>-0.13 (14)</td>
<td>43.3 (5)</td>
<td>21 (6)</td>
<td>4.17 (1)</td>
</tr>
<tr>
<td>Ventilator management</td>
<td>4.42 (3)</td>
<td>4.43 (3)</td>
<td>+0.01 (9)</td>
<td>57.7 (3)</td>
<td>15 (2)</td>
<td>4.08 (3)</td>
</tr>
<tr>
<td>Spirometry</td>
<td>4.21 (4)</td>
<td>4.29 (4)</td>
<td>+0.08 (7)</td>
<td>39.1 (6)</td>
<td>17 (3)</td>
<td>3.63 (4)</td>
</tr>
<tr>
<td>Bronchodilator response</td>
<td>4.17 (5)</td>
<td>4.03 (5)</td>
<td>-0.14 (15)</td>
<td>9.4 (15)</td>
<td>35 (14)</td>
<td>3.54 (5)</td>
</tr>
<tr>
<td>Diffusing capacity</td>
<td>3.91 (6)</td>
<td>3.91 (6)</td>
<td>0.00 (10)</td>
<td>16.4 (12)</td>
<td>22 (8)</td>
<td>3.29 (6)</td>
</tr>
<tr>
<td>Lung volumes, gas dilution</td>
<td>3.86 (7)</td>
<td>3.64 (9)</td>
<td>-0.22 (16)</td>
<td>8.8 (16)</td>
<td>41 (15)</td>
<td>3.26 (7)</td>
</tr>
<tr>
<td>Lung volumes, body box</td>
<td>3.70 (8)</td>
<td>3.65 (8)</td>
<td>-0.05 (11)</td>
<td>21.0 (10)</td>
<td>29 (11)</td>
<td>3.15 (8)</td>
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<tr>
<td>Lung compliance</td>
<td>3.59 (9)</td>
<td>3.62 (10)</td>
<td>+0.03 (8)</td>
<td>18.8 (11)</td>
<td>29 (11)</td>
<td>3.15 (8)</td>
</tr>
<tr>
<td>Airway challenge testing</td>
<td>3.41 (10)</td>
<td>3.55 (12)</td>
<td>+0.14 (6)</td>
<td>21.4 (9)</td>
<td>27 (10)</td>
<td>2.99 (11)</td>
</tr>
<tr>
<td>Respiratory muscle strength</td>
<td>3.39 (11)</td>
<td>3.58 (11)</td>
<td>+0.19 (5)</td>
<td>23.4 (8)</td>
<td>24 (9)</td>
<td>3.02 (10)</td>
</tr>
<tr>
<td>Airways resistance</td>
<td>3.38 (12)</td>
<td>3.32 (16)</td>
<td>-0.06 (12)</td>
<td>14.8 (14)</td>
<td>42 (16)</td>
<td>2.95 (13)</td>
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<tr>
<td>Sleep-disordered breathing</td>
<td>3.09 (13)</td>
<td>3.73 (7)</td>
<td>+0.64 (2)</td>
<td>52.5 (4)</td>
<td>13 (1)</td>
<td>2.90 (14)</td>
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<tr>
<td>Cardiopulmonary exercise testing</td>
<td>3.17 (14)</td>
<td>3.54 (13)</td>
<td>+0.37 (4)</td>
<td>61.9 (1)</td>
<td>18 (5)</td>
<td>2.99 (11)</td>
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<tr>
<td>Six-minute walk/step/shuttle testing</td>
<td>2.92 (15)</td>
<td>3.39 (15)</td>
<td>+0.47 (3)</td>
<td>16.0 (13)</td>
<td>31 (13)</td>
<td>2.70 (15)</td>
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<tr>
<td>Pulmonary rehabilitation</td>
<td>2.74 (16)</td>
<td>3.52 (14)</td>
<td>+0.78 (1)</td>
<td>58.3 (2)</td>
<td>17 (4)</td>
<td>2.57 (16)</td>
</tr>
</tbody>
</table>

*1 = inadequate, 2 = fair, 3 = adequate, 4 = good, and 5 = excellent.
†Subjects were asked, “If you could improve the quality of training for current trainees in five of the areas, which would you choose? Please choose only five, and rank 1 through 5 with 1 being your first choice.” This column indicates the percentage of respondents including the clinical area among their top five.

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Risks in Using Nonrigorous Spanish Translations of Asthma Questionnaires

To the Editor:

Taking into account the substantial growth occurring among Latino populations in the United States, and the fact that some Latino populations are especially vulnerable for asthma, correctly identifying asthma cases and symptoms among persons in these populations is critical. We evaluated potential problems inherent to the English-Spanish translation of asthma questionnaires, in particular the word “wheeze,” which is key to the performance of most of these instruments.1

Two groups of participants were recruited (60 bilingual [Spanish-English] and 40 Spanish monolingual; all were New York residents who were parents of children with asthma-related respiratory problems). Institutional review board clearance was obtained. Bilingual participants were asked to (a) translate the word “wheeze” to Spanish, and (b) to retrotranslate a nonrigorous Spanish translation of the word “wheeze” (“ronquido”). This translation was furnished by an accredited translator who was experienced in medical translation. The translator was familiar with the vernacular of the population in the area where such nonrigorous translation was tested, which was a predominantly Dominican neighborhood in New York City that is affected by asthma rates substantially greater than those reported nationally.2 This nonrigorous translation was also checked for accuracy by a second accredited translator. Monolingual participants were asked to describe asthma symptoms in Spanish. As expected, due to the local demographics of the recruitment area, the majority of our participants (84 of 100 participants) were Dominican.

The word “wheeze” presented problems for bilingual participants whose primary language was English; 9 of 39 of these respondents (23%) could not translate “wheeze” into Spanish.