In terms of limitations, our results cannot be generalized beyond the 2 conferences included. Given the word constraints of abstracts, potential misclassification of studies may have occurred and other important predictors (eg, education level) may have been missed. Additionally, author degrees were not available for CCME and therefore could not be included in multivariable analysis. To move the field forward, it is important to develop a robust literature to document emerging innovations and elevate the relevance and value of educational scholarship. Future research is planned to determine barriers to publication to help mitigate them.

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Study concept and design: Walsh, Ginsburg.

Acquisition of data: Walsh, Fung, Ginsburg.

Analysis and interpretation of data: Walsh, Ginsburg.

Drafting of the manuscript: Walsh.

Critical revision of the manuscript for important intellectual content: Walsh, Ginsburg.

Statistical analysis: Walsh.

Administrative, technical, or material support: Fung, Ginsburg.

Study supervision: Ginsburg.

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Clinical Performance of Medical Students With Protected Disabilities

The Americans with Disabilities Act requires accommodations for students with protected disabilities. To inform conversations about the effect of disabilities and accommodations on performance by medical students, we sought to determine if clinical performance during the clerkship year and graduation rates differed between students with and without protected disabilities.

Methods | We conducted a retrospective cohort study at the University of California, San Francisco (UCSF). The UCSF institutional review board approved the research protocol and consent waiver. Between 1987 and 2009, approximately 3000 medical students matriculated to UCSF.

The director of student disability services elicits a detailed history of the student’s disability to determine qualification for accommodations. Students who matriculated with protected disabilities did so based on mental or physical impairment. Each student with a protected disability was matched to 3 students without protected disabilities based on sex, age, and year of matriculation for power of 80% and moderate effect size \( n^2 = 0.09, \alpha = .05 \).

Measures included demographics, bases for disability, Medical College Admission Test (MCAT) scores, graduation rate, first-attempt scores or pass rates on US Medical Licensing Examination (USMLE), and residency match rates. Clerkship directors submitted 13-item assessments at the end of 6 core clerkships. Each item was scored as 1 = inadequate; 2 = fair; 3 = good (passing); and 4 = outstanding. Data from 8 of the items were used to calculate mean composite clerkship assessment scores representing medical knowledge, data gathering, communication skills, and professionalism across clerkships. Data collection was completed September 2013.

We examined statistical relationships by using \( \chi^2 \) and Fisher exact tests, 1-way analysis of variance, and multivariable analysis of covariance. All tests were 2-sided with \( P < .05 \) used as the significance threshold. We used SPSS version 19 (SPSS Inc).

Results | The study sample consisted of 59 students with protected disabilities and 171 students without protected disabilities. Demographics were similar for students with and without protected disabilities (Table 1). Of students with disabilities, 29 (49.2%) had mental impairment (22 [37.3%] learning; 5 [8.5%] attention-deficit/hyperactivity disorder; 2 [3.4%] psychological), 25 [42.4%] had physical impairment (7 [11.9%] mobility; 2 [3.4%] hearing; 1 [1.7%] vision; 15 [25.4%] other), and 5 (8.4%) had other impairments. The graduation rate was 86.4% (51/59) for students with protected disabilities and 99.4% (176/177) for students without protected disabilities \( (P = .001) \).

Students without protected disabilities performed better than those with protected disabilities on MCAT physical sciences scores (mean difference, 1.2 [95% CI, 0.6-1.8], \( P = .001 \)), MCAT biological sciences scores (mean difference, 0.9 [95% CI, 0.3-1.4], \( P = .002 \)), MCAT verbal reasoning scores (mean difference, 0.7 [95% CI, 0.2-1.1], \( P = .01 \)), first-attempt USMLE step 1 scores (mean difference, 16.0 [95% CI, 9.2-23.0], \( P = .001 \)), and USMLE step 2 clinical knowledge scores (mean difference, 12.4
There were no differences between groups in USMLE Step 2 clinical skills pass rates or match rates into residency programs or primary care for those who graduated from medical school.

Students in all groups performed in the passing range (score ≥3) on their clerkship assessments (Table 2). Students without protected disabilities performed better than students with protected disabilities for mental impairment on data gathering (mean difference, 0.2 [95% CI, 0.002-0.3]; P = .04) and communication skills (mean difference, 0.2 [95% CI, 0.01-0.3]; P = .03). Professionalism and knowledge scores did not differ by group.

**Discussion** | Most medical students with protected disabilities performed well clinically, graduated, and matched into residency programs.
Abbreviation: IQR, interquartile range.

Table 2. Comparison of Composite Clerkship Performance of Medical Students With and Without Protected Disabilities for Physical and Mental Impairment

<table>
<thead>
<tr>
<th></th>
<th>Students With Protected Disability Status by Type</th>
<th>Students by Protected Disability Status</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Physical Impairment (n = 23)</td>
<td>Mental Impairment (n = 28)</td>
</tr>
<tr>
<td></td>
<td>With (n = 51) b</td>
<td>Without (n = 153)</td>
</tr>
<tr>
<td>Composite clerkship assessment scores, median (IQR) a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fund of knowledge</td>
<td>3.3 (2.9–3.5)</td>
<td>3.1 (2.8–3.3)</td>
</tr>
<tr>
<td></td>
<td>3.2 (2.9–3.4)</td>
<td>3.4 (3.2–3.6)</td>
</tr>
<tr>
<td>Data gathering</td>
<td>3.5 (3.2–3.6)</td>
<td>3.3 (3.1–3.5)</td>
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<tr>
<td></td>
<td>3.4 (3.1–3.6)</td>
<td>3.5 (3.4–3.7)</td>
</tr>
<tr>
<td>Communication skills</td>
<td>3.7 (3.5–3.9)</td>
<td>3.6 (3.3–3.7)</td>
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<tr>
<td></td>
<td>3.6 (3.4–3.8)</td>
<td>3.8 (3.6–3.9)</td>
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<tr>
<td>Professionalism</td>
<td>3.6 (3.4–3.9)</td>
<td>3.6 (3.4–3.8)</td>
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<tr>
<td></td>
<td>3.6 (3.4–3.8)</td>
<td>3.8 (3.6–3.9)</td>
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<tr>
<td>Composite clerkship assessment scores, mean (95% CI) a,c</td>
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<tr>
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<td>3.3 (3.2–3.5)</td>
<td>3.1 (3.1–3.3)</td>
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<td>Professionalism</td>
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<td>3.6 (3.7–3.7)</td>
<td>3.7 (3.7–3.8)</td>
</tr>
</tbody>
</table>

Abbreviation: IQR, interquartile range.

a Items were scored on a 4-point scale: 1 = inadequate; 2 = fair; 3 = good (passing); and 4 = outstanding.

b Total sample of 51 reflects exclusion of 5 students with protected disabilities classified in other category combined with 4 students who were dismissed or withdrew, one of whom was classified in other category.

c Statistical analyses using multivariable analysis of covariance reflects comparison of performance on clerkship assessments for students with protected disabilities from physical impairment and mental impairment, and students without protected disabilities considering a priori differences in US Medical Licensing Examination step 1 scores and matching variables (students with disabilities were matched to students without disabilities on 3 variables) as a random effect.

d Significant difference is between students with protected disabilities from mental impairment and students without protected disabilities (F = 2.7, P = .04, η2 = 0.06). All tests were 2-sided with P < .05 used as the significance threshold.

d Comments and interpretation of data: Teherani.

Drafting of the manuscript: Teherani, Papadakis.

Critical revision of the manuscript for important intellectual content: Teherani, Papadakis.

Statistical analysis: Teherani.

Administrative, technical, or material support: Teherani, Papadakis.

Study supervision: Papadakis.

Conflict of Interest Disclosures: The authors have completed and submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest and none were reported.

Additional Contributions: We thank Eric Koenig, MS, Neera Jain, MS, CRC, Lisa Meeks, PhD, and Barbara Smith (all 4 with the Office of Student Life, University of California, San Francisco) for their help with clarifying rules and procedures for disability services and providing the data on accommodations; and Mark Lovett, MPIA (Office of Medical Education, University of California, San Francisco), for help with acquiring demographic and outcome data and merging with the data on accommodations provided by the Office of Student Life. None of these persons received compensation for their contributions.


COMMENT & RESPONSE

Soy Protein and Recurrence of Prostate Cancer

To the Editor

Dr Bosland and colleagues1 found no effect of a soy protein isolate on biochemical recurrence of prostate cancer. I believe there were problems with the choice of both the intervention and placebo products.

The soy isolate was not a true isolate because this would imply a concentrated protein source with minimal additive ingredients. However, the soy isolate also contained sugar (20 g

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