



## KEY POINT SUMMARY

### OBJECTIVES

The goal of the study was to compare medical students' and physician residents' satisfaction with Veterans Affairs (VA) training to determine the factors and domains (learning environment, preceptor/faculty, working environment, and physical environment) that were most strongly associated with satisfaction.

## Factors Determining Medical Students' and Residents' Satisfaction During VA-Based Training: Findings from the VA Learners' Perceptions Survey

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### Key Concepts/Context

Patient satisfaction surveys of healthcare environments are often used to gauge perceptions of broad aspects of the built environment. In this large-scale study using a validated instrument, the study population is medical students and residents. The investigation simultaneously compares multiple domains of trainee satisfaction in a common clinical training environment through a serial cross-sectional national survey. Whereas prior studies focused on teaching style, role models, and the influence of clinical rotations on choice of specialty training, this study evaluates common clinical settings of all trainees at VA medical facilities and includes factors of the built environment.

### Methods

Medical students and residents in VA teaching facilities completed the Learners' Perceptions Survey (LPS), a previously validated tool. A total of 23,110 participants from 125 facilities rated their overall training satisfaction on a 100-point scale (100 defined as perfect, 70 as passing) and ranked specific satisfaction in four separate educational domains (learning environment, clinical faculty, working environment, and physical environment) on a 5-point Likert scale. Each domain was composed of unique items that included: 15 items in the learning environment domain; 13 items in the clinical faculty/preceptors domain; 13-items in the working environment domain; and 12-items in the physical environment domain. Mixed-effects models were used to compute the association between individual items on domain scores and, in turn, the association of differences in domain scores with differences in



facility wide satisfaction scores. Models were adjusted for nesting of respondents among 125 facilities and during six years of assessments (2001-2006).

## Findings

For all respondents, the rating of each of the four educational domains was statistically significantly associated with the overall training satisfaction score. The authors noted three key observations about the findings:

1. trainee satisfaction was higher for medical students than for residents in a common training environment, with differences in satisfaction occurring as medical students and residents advanced in their training
2. the domains and items associated with the overall satisfaction with VA-based training of medical students and physician residents were similar
3. the learning environment domain rating had the strongest association with overall training satisfaction, whereas ancillary matters associated with the physical environment were found to be less important. No significant differences were found between medical students and physician residents in the rank order (learning environment; clinical preceptor; working environment; physical environment).

## Limitations

The authors identified several limitations.

1. The relatively low response rate raises the potential issue of sampling bias. No registry existed to identify all potential respondents, so the size of the target populations could only be estimated. However, from 2002 to 2004, identical questions were included in the fourth-year medical students' questionnaire by the Association of American Medical Colleges (AAMC). Results indicate that the fourth-year medical students responding to the LPS were representative of fourth-year medical students in general.
2. The survey evaluated the most recent VA clinical training experience and did not distinguish between the medical student training specialty or setting (i.e., medicine versus surgery, or outpatient versus inpatient). The authors elected to compare students against the entire pool of postgraduate trainees rather than adjust for training program, but acknowledge that important differences in different settings and specialties may exist.
3. The data do not permit analyzing the responses of an individual respondent over time (longitudinal analysis) because data were collected anonymously through annual surveys.

While commonalities in the care provided in VA facilities allow comparisons across training sites; the findings may not be generalizable to other training sites.



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As the study focused on the learning environment of medical students and residents, the results are not generalizable to the larger population of clinicians, nurses or other hospital staff.

### Design Implications

While the working environment and physical environment domains may have been ranked lower within the study, specific items of importance within these domains include

- Workspace (Working Environment Domain)
- Computerized Patient Record System (CPRS) (Working Environment Domain)
- Facility maintenance/upkeep (Physical Environment Domain)
- Facility cleanliness/housekeeping (Physical Environment Domain)
- Call rooms (Physical Environment Domain)
- Availability of food on call (Physical Environment Domain)
- Availability of needed equipment (Physical Environment Domain)

Strategies to address these items (durability, cleanability, adequate storage, appropriate adjacencies, etc.) should be considered in academic medical centers.