Service or Education

In the Eye of the Beholder

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Objectives: To elicit and compare surgical resident and program director (PD) perspectives on service and education in surgical training and the conditions that influence these opinions.

Design: Cross-sectional, multi-institutional national study conducted through an online survey.

Setting: General surgical residency programs in the United States.

Participants: General surgical residents and PDs.

Main Outcome Measures: Resident and PD perspectives on the circumstances, conditions, and context in which activities are perceived as service vs education.

Results: Respondents scored 24 resident activities on 5-point Likert scales and commented on conditions that influenced these scores. From 17 residency programs, 105 of 218 PDs (48.4%) responded, and 407 of 645 residents (63.1%) responded. Compared with residents, PDs rated 21 of 24 activities (87.5%) as more educational than service ($P \leq .05$). In more than half these activities, notable minorities (≥25%) of residents stated that these activities were service and educational, depending on factors that included the particular attending physician, case complexity, and experience with the activity. Postgraduate year seniority correlated with service and educational perceptions in 12 activities ($P < .05$). Attending physician teaching and learning environment correlated positively ($P < .05$) with perception as educational in 8 and 5 activities, respectively.

Conclusions: This study demonstrated significant differences in service and education definitions for PDs and residents. The implication that these activities are mutually exclusive may devalue residents' perceptions of the importance of patient care as an essential component of surgical competency. In an era of diminished work hours and continuity of care, educators must teach residents to appreciate the educational value in providing care for all patients and develop a sense of patient ownership in both faculty and residents.

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The Accreditation Council on Graduate Medical Education (ACGME)[1] asks residents annually to rate their program's emphasis on clinical education vs service obligations, thus fostering a debate on the appropriate balance between the two.[2,3] This balance is difficult to establish because residency training was founded on an apprenticeship model in which both are important,[4] and residents are hospital employees who are paid to provide services that include ordering tests and completing paperwork. When residents indicate that service obligations are excessive, their definitions are unclear and may differ from those of the program directors (PDs) charged with addressing ACGME concerns.[4,5] In addition, residents' perceptions may be influenced by overall satisfaction or dissatisfaction with the training program.[6]

See Invited Critique at end of article

Several studies[2,5-15] have attempted to identify the ideal residency experience. Activities deemed to be of little educational benefit included routine admission paperwork, acting as first assistant in the operating room (OR), and "prerounding" (ie, seeing patients before formal morning rounds).[9] In a survey of surgical residents, Davenport et al[6] found a correlation between job satisfaction and the quality of care that residents perceived as being delivered to patients. Positive correlation was also noted with effective ancillary services and faculty teaching, and negative

Table 1. Characteristics of Residency Programs

Characteristic	No. (%) Resident Group (n = 407)	No. (%) PD Group (n = 105)
No. of residents graduating annually		
<3	58 (14.3)	34 (32.4)
4-6	174 (42.8)	47 (44.8)
7-10	152 (37.3)	21 (20.0)
>10	23 (5.7)	3 (2.9)
Research years		
Mandatory	121 (29.8)	19 (18.1)
Optional	255 (62.7)	60 (57.1)
None	31 (7.6)	26 (24.8)

Abbreviation: PD, program director.

correlation was associated with scut work (including inserting intravenous lines and paperwork), erroneous paging, disrupted dietary patterns, and hours on duty without rest. In a national survey of senior residents, Ko et al[5] identified resident participation in the OR, attending physicians citing evidence-based literature, joint clinical decision making with faculty, and providing continuity of care as factors that had a positive correlation with resident satisfaction. Negative factors included being overly supervised in surgery, interruptions that impeded teaching, and time spent performing scut work.[5]

These articles provided important insights and were used to create a framework for the current study; however, they were often limited by low response rates and program-specific data or were performed before implementation of the current work hour restrictions. The word *service* is often synonymous with scut work, has inherent negative connotations, and is a deterrent to medical students considering surgery as a career choice.[12,16] Because many service activities contribute to patient welfare, the implication that service is undesirable may devalue the educational importance of patient care in professional development. Our objectives were to elicit and compare general surgical resident and PD perspectives on service and education in surgical training and the conditions that influence these opinions as a step closer to addressing the concerns reflected in the ACGME survey.

METHODS

SAMPLE SELECTION

A list of 237 general surgery PDs was compiled from the Fellowship and Residency Electronic Interactive Database.[17] Each PD was invited to complete an online survey and forward a similar survey to his or her residents. To facilitate monitoring the resident response rate, each participating institution was provided with a unique URL. The study was granted an exemption by the Springfield Committee for Research Involving Human Subjects.[18]

SURVEY DESIGN

Literature-based 10-question surveys were developed, pilot tested, and critiqued for content validity by a surgical education committee.[19] Study participants were asked to score 24 resident activities on 5-point Likert scales (5, almost always educational; 3, sometimes service/sometimes educational; and 1, almost always service). Respondents were asked to explain their "sometimes" responses, to list the most commonly performed educational and service-based resident activities, and to indicate how significantly certain factors might affect a resident's perception of an activity as service or education. Finally, participants were asked to define the appropriate percentage of service activity for each postgraduate year (PGY). Responses were collected anonymously through an electronic software program[20] and stored in a password-protected database.

DATA ANALYSIS

Two of us (H.S. and S.W.) with backgrounds in surgery and qualitative methodology analyzed the written comments using a constant comparative method of analysis to identify dominant themes.[21] Resident and PD scores were compared using the Wilcoxon rank sum test. Correlation between PGY and perception as educational was performed by Spearman correlation coefficient analysis. Statistical significance was defined as $P \leq .05$.

RESULTS

DEMOGRAPHICS

Of 237 e-mails, 19 were undeliverable. One hundred five of the remaining 218 PDs (48.4%) completed the survey (**Table 1**). Seventeen PDs (7.8%) agreed to distribute the resident survey to the 645 general surgical residents in their programs. Mean (SD) program response rate was 64% (26%) (range, 25%-100%). Of the 645 residents, 407 responded (63.1%), of whom 247 were men (60.7%) and 160 were women (39.3%).

SERVICE AND EDUCATIONAL ACTIVITIES

Operating room participation was the activity most frequently stated as educational by both PDs and residents, particularly senior residents. Rounds with attending physicians or chief residents were more frequently listed as educational by junior than by senior residents ($P \leq .005$). When compared with junior colleagues, higher percentages of PGY5 residents considered residency-related administrative work, such as call schedules and case logs ($P \leq .005$), and performing procedures more suitable for junior residents ($P \leq .005$) to be service. Seventeen of the 24 activities (70.8%) listed in **Table 2** were thought to be predominantly educational by PDs, but only 13 (54.2%) were considered educational by residents. Acting as first assistant in the OR was the only activity that received a higher mean score from residents than from PDs ($P = .21$).

A notable minority of respondents (arbitrarily defined as ≥25%) indicated that certain activities were sometimes service and sometimes educational (**Table 3**). Using this definition, residents indicated ambiguity in 14 activities (58.3%) and PDs in 9 activities (37.5%). Analysis of the qualifying comments indicated that PD perception of ambiguity depended most frequently on the number of times the resident had performed the activity

Table 2. Activities Ranked in Order of Mean Resident Score[a]

Activity	Mean Resident Score (n = 407)	Mean PD Score (n = 105)	Comparison of Resident and PD Scores, *P* Value[b]	Correlation Between PGY and Perception as Educational[c]	
				r	*P* Value
Operate	4.62	4.71	.66	0.17	<.001
Study for ABSITE	4.52	4.90	<.001	0.01	.78
Grand rounds	4.24	4.70	<.001	0.07	.14
Prepare mortality and morbidity presentation	4.13	4.70	<.001	0.04	.43
Perform research project	4.09	4.59	<.001	0.02	.61
Act as first assistant to attending physician in OR	4.03	3.91	.21	–0.12	.01
Present clinic cases to attending physician	3.83	4.30	<.001	0.17	<.001
Teach students	3.77	4.11	.005	0.08	.09
Round with attending physician/chief resident	3.76	4.00	.013	0.04	.46
Dictate operative notes	3.74	4.33	<.001	0.24	<.001
See consults	3.69	4.33	<.001	0.12	.02
See clinic patients	3.62	4.31	<.001	0.15	.002
Perform preoperative history and physical	3.61	4.33	<.001	0.24	<.001
Talk to patient's family	3.44	4.30	<.001	0.17	<.001
Obtain consent for operation	3.04	4.15	<.001	0.23	<.001
Call referring physician	2.94	3.74	<.001	0.13	.01
Write daily notes	2.88	3.95	<.001	0.12	.01
Locate radiographs/test results	2.87	2.86	.78	0.04	.44
Receive nonemergency pages	2.56	3.24	<.001	0.01	.77
Start IVs	2.47	2.70	.04	–0.13	.01
Prepare discharge orders	2.10	3.30	<.001	–0.03	.49
Schedule patient tests	1.88	2.44	<.001	–0.01	.82
Prepare call schedule	1.79	2.87	<.001	–0.03	.56
Enter duty hours	1.59	2.33	<.001	–0.06	.26

Abbreviations: ABSITE, American Board of Surgery In-Training Examination; IVs, intravenous infusions; OR, operating room; PD, program director; PGY, postgraduate year.
[a]A score of 5 indicates almost always educational; 1, almost always service.
[b]Wilcoxon rank sum test.
[c]Spearman correlation coefficient.

or whether it was a skill necessary for surgical practice. For example, on transporting patients: "Learning how to get a patient disconnected from bedside monitors and connected to portable monitors for transport to CT [computed tomography] is educational" (PD). The PDs indicated that educational benefit from acting as first assistant in the OR depended on case complexity: "In order to practice surgery one needs to see it done well. . . . However, if the case is one that the resident is capable of performing, and the attending 'takes it away,' it is service" (PD).

Residents across all years of training were influenced by specific attending physician attributes: "Few (attendings) are involved with residents and develop a relationship. . . . I don't need my hand held, but I do need to talk to my attendings regularly" (PGY1). And again: "There are some attendings that are dedicated to teaching and others that don't seem interested; they don't bother to round with you or, if they do, they create an atmosphere of intimidation and mock you in public" (PGY2). The residents noted that service was less palatable if unaccompanied by autonomy: "Surgical services where the treatment plan is dictated to the resident by a fellow or attending provide little education" (PGY3). Some residents saw teaching as reward for service: "There is an expectation that by rounding on all their patients and taking care of them 24 hours a day, attendings should reward them (residents) by teaching and allowing them [to] do the operation" (PGY4).

Across all years of training, there was resentment at doing work that should be done by others: "Once you have completed your intern year, it feels degrading to do discharge summaries when there are NPs [nurse practitioners] and interns that can do the job" (PGY4). Residents also expressed frustration at being used to support the system: "Protected time during the day just makes the rest of the day harder; although attendings think the time is protected, the rest of the hospital does not" (PGY1) and that midlevel providers often get in the way of teaching opportunities: "Residents miss cases doing work that should be done by physician extenders, while the extenders are operating" (PGY3).

RESIDENT OPINIONS BY PGY

Resident opinions varied by PGY and are summarized in **Table 4**. Predictably, PGY1 residents perceived new experiences as educational. Activities performed for documentation purposes lost educational value: "Doing routine H&P [history and physical] to fulfill a 30-day rule is never educational" (PGY1). The PGY1 residents believed that activities for which they were unprepared could be stressful, thereby losing educational value: "Talking to a patient's family can be helpful in figuring out what aspects of treatment are important to families. On the other hand, it is a chore for difficult families if the lowest-ranking member is sent in to be eaten alive"

Table 3. Activities Ranked as Sometimes Service/Sometimes Educational

Activity	No. (%) Residents (n = 407)	No. (%) PDs (n = 105)
Perform preoperative history and physical	142 (34.9)	20 (19.0)
Dictate operative notes	115 (28.3)	9 (8.6)
Obtain consent for operation	123 (30.2)	23 (21.9)
Act as first assistant in OR	97 (23.8)	33 (31.4)
Start an IV	124 (30.4)	44 (41.9)
Locate x-ray films/test results	102 (25.1)	23 (21.9)
Talk to a patient's family	149 (36.7)	16 (15.2)
Round	130 (31.9)	26 (24.8)
Teach students	119 (29.2)	17 (16.2)
Prepare call schedule	66 (16.2)	36 (34.3)
Schedule patient examinations/tests	73 (17.9)	27 (25.7)
Return pages	152 (37.3)	45 (42.9)
See clinic patients	159 (39.1)	10 (9.5)
Present clinic cases to an attending physician	125 (30.7)	11 (10.5)
Write daily notes	136 (33.4)	31 (29.5)
See consults	142 (34.9)	12 (11.4)
Prepare discharge orders	75 (18.4)	33 (31.4)
Call referring physician	137 (33.7)	28 (26.7)

Abbreviations: IV, intravenous infusion; OR, operating room; PDs, program directors.

Table 4. Themes That Affect Resident Perception of Service or Educational

PGY	Theme
1	Skill already acquired or routine without new education value
	Faculty/consultant do not teach about an activity
	Deemed inappropriate activity or request
	Could just as easily be done by someone else
	Is needlessly stressful
	Clerical function is expected for documentation
	Is not in the resident's area of interest
2	Not given autonomy
	Time constraints prohibit an educational component
	Faculty are poor teachers
	Team behavior—leadership
3	Lack of continuity
	Content/patient complexity
4	Activity performed for administrative purposes or to appease nurses/consultants
5	Resident was performing a procedure more appropriate for a junior resident

Abbreviation: PGY, postgraduate year.

(PGY1). Finally, even planned educational activities could be considered service if not in the resident's area of interest.

The PGY2 residents expected more autonomy and team building and were vocal about time constraints for teaching: "The pace needed to get through the work cuts learning opportunities. Dictate notes, fill out forms, schedule patients for surgery, without time for discussion of teaching points" (PGY2). Comments on the importance of working as a team included: "Team environment—the feel of the service reflects how residents work together; whether people are helping each other or if work is getting dumped on certain members" (PGY2); leading by example: "When we have attendings and chiefs who are able to make anything educational and set an example in attitude, we are more likely to see any activity as educational" (PGY2); and the importance of mutual support: "Sometimes excellent patient care means taking care of details that have fallen through the cracks" (PGY2). Third-year residents emphasized the importance of patient continuity: "Seeing consults is useful for learning diagnostic algorithms, but if the resident will not be involved in the treatment of the condition they have helped to work up, that becomes more of a service obligation" (PGY3), and patient complexity: "Answering a page about 'belly pain' is service (usually nonoperable), but occasionally it's something interesting, like a closed loop obstruction" (PGY3).

New themes that emerged from the PGY4 residents were consult activities performed to appease consultants: "Some patients are clearly nonoperative patients that attendings 'follow' to appease consultants. Frequently, the patient has NOT been seen by the consultant, and consults are called by clerks" (PGY4). The PGY5 residents appreciated independence: "The finished product has to be residents that can make decisions, operate, and function confidently without attending oversight" (PGY5).

CIRCUMSTANCES AND CONTEXT

To further clarify the circumstances or context under which ambiguity existed about service or education, respondents were asked to indicate how many listed factors might influence resident perception of service vs education, with 1 indicating unimportant, and 5, very important. The mean score was calculated for each factor (**Table 5**). The ranking priority from the residents was consistent across all years of training. In the opinion of the PDs, attending physician teaching, learning environment, relevance to career goals, and the ability of supervisors to show appreciation were important: "If superiors acknowledge work is service and have empathy, residents will respond in a more forgiving way than if they are just ordered to do it" (PD). The PDs also commented on competing priorities: "They all want to be in OR. Anything that interferes with that, like clinic, is interpreted negatively" (PD). Finally, PDs commented on concerns that residents were used as cheap labor to prop up the system: "If the functions could be performed by nurse practitioners or physician assistants, who displace residents from procedures, residents see it as service. This is a function of having insufficient staff to provide basic services needed by patients" (PD). Support from other team members: "Relieving poor interns for meals is important. No one is bothered about that, especially between cases. No one speaks to interns regarding their concerns" (PGY1). Similarly: "How much support you get from your colleagues, ie, upper level residents don't operate all day but take time to teach or do something nice for you like make calls to obtain outside hospital records" (PGY1). Predictably, residents resented a "this is how I did it" approach and the implication that abuse

Table 5. Factors That Influence Perception of Activities as Service or Educational[a]

	Mean (SD)						
	PGY1 (n=143)	PGY2 (n=73)	PGY3 (n=75)	PGY4 (n=70)	PGY5 (n=46)	Total Residents (N=407)	PDs (n=105)
Performing the activity after call	3.04 (1.39)	3.26 (1.20)	2.99 (1.20)	3.08 (1.30)	2.83 (1.28)	3.05 (1.29)	3.14 (1.21)
Lack of respect for the attending physician	2.84 (1.36)	3.09 (1.26)	2.88 (1.26)	3.11 (1.27)	3.46 (1.52)	3.01 (1.34)	4.06 (1.02)
Attending physician does not teach	**4.21 (1.12)**	**4.38 (0.84)**	**4.44 (0.92)**	**4.48 (0.79)**	**4.46 (0.97)**	**4.36 (0.97)**	**4.66 (0.71)**
Unfriendly/unhelpful nurses	2.95 (1.41)	3.16 (1.34)	3.12 (1.31)	3.16 (1.31)	3.06 (1.38)	3.07 (1.36)	3.51 (1.08)
Impedes access to meals	2.10 (1.16)	2.26 (1.19)	1.72 (0.98)	1.98 (1.10)	1.63 (1.02)	1.98 (1.13)	2.56 (1.08)
Unhappy in work	3.32 (1.39)	3.57 (1.12)	3.15 (1.32)	3.43 (1.28)	3.27 (1.30)	3.34 (1.30)	4.41 (0.73)
Unhappy in personal life	2.76 (1.41)	3.03 (1.28)	2.65 (1.32)	2.80 (1.41)	2.96 (1.41)	2.82 (1.37)	4.17 (0.87)
In poor learning environment	**4.05 (1.18)**	**4.18 (1.09)**	**4.16 (1.01)**	**4.13 (0.98)**	**4.24 (1.98)**	**4.13 (1.10)**	**4.51 (0.82)**

Abbreviations: PDs, program directors; PGY, postgraduate year.
[a]1 indicates important; 5, unimportant. The most important factors in each group are indicated in bold font.

was a rite of passage: "There is an attitude in surgery that trainees need to pay their dues like their predecessors (and if they don't, they are weak). . . . It is striking that highly educated/intelligent people would endorse such a counterproductive approach to education" (PGY1). Finally, residents were vocal in suggesting change: "Rather than subjecting trainees to hazing rituals, teachers should provide a better education for me than they had, and I should do the same when I am in their position" (PGY1). And again: "The decreasing level of resident autonomy is crippling the educational system . . . graduated, resident autonomy is a requisite to the production of MDs that can think, act, and do well on their own after graduation" (PGY5).

BALANCE

Program directors and residents agreed that the ratio of service to education should decrease with increasing years of training (**Table 6**). Sixteen of 26 PDs (61.5%) who commented on this argued that service is educational because it is part of the job: "Service teaches the resident about the complexities of health care, the need for multidisciplinary teamwork, the divergent interests of various providers, and ownership" (PD). Several PDs were philosophical about changing times: "When a PGY1 drew blood cultures and saw sweat on the patient's forehead and that the patient wasn't as alert as the last time he was seen—he saw clinical signs of early anastomotic leak. This is important in developing clinical acumen; it has been lost in the name of 'reducing service'" (PD). Similarly: "I am a better surgeon, supervisor, and person because I grew up in an era of scut—I know what is involved and I appreciate the plight of the people I now assign to do it!" (PD). Some residents agreed: "Service and education are often the same. If a surgeon in practice does what the resident is complaining about as 'service,' then it is just part of the job" (PGY3). The need to put patients first was echoed by residents: "Everyone should be expected to pitch in and perform 'service' to care for patients, including attendings. I dislike a culture that engenders an atmosphere where someone is 'above' doing certain types of work" (PGY1). Finally, senior residents expressed appreciation for the service activities performed in their training: "I consider service an obligation to the patient that I have operated upon . . . while learning skills to reach the perfection that I need to be independent" (PGY5), and "The many service opportunities I had as a junior resident gave me education and experience that I didn't appreciate until later" (PGY5).

COMMENT

General surgery PDs are facing declining interest in general surgery as a career,[22-24] a predicted shortage of general surgeons,[24,25] and estimated attrition rates of 17% to 26% among general surgical residents.[10,26-30] Therefore, PDs are under pressure to understand and address residents' concerns about excessive service if the specialty is to survive. In what we believe to be the first national study to explore correlations between surgical PD and resident perceptions of service and education in an era of reduced duty hours, we have attempted to clarify the concerns of both groups. The PD response rate of 48.4% is acceptable for a national survey, and the large number of PD respondents adds credibility to our data. All years of training were well represented; however, there were more residents at the PGY1 level of training compared with the senior years. This preponderance of PGY1 respondents could be explained by survey fatigue in the more senior residents.

A number of our findings are supported by previous work. Davenport et al[6] noted that resident satisfaction was influenced by resident perception of the quality of patient care and effective support systems. Similarly, in our study, the residents' belief that they were carrying the burden for inefficiencies in hospital staffing contributed to a perception that certain clinical activities were service. Our data also confirm the association between resident satisfaction and attending physician teaching,[5,6] specifically the residents' preference for OR time and shared clinical decision making with the attending

Table 6. Appropriate Ratio of Service to Education for Each PGY[a]

	No. (%)							
	0% Service		<10% Service		11%-25% Service		26%-50% Service	
PGY	PD	Resident	PD	Resident	PD	Resident	PD	Resident
1	0	3 (0.7)	14 (13.3)	31 (7.6)	**49 (46.7)**	84 (20.6)	**34 (32.3)**	**260 (63.9)**
2	0	1 (0.2)	17 (16.2)	44 (10.8)	**56 (53.3)**	**191 (46.9)**	23 (21.9)	150 (36.9)
3	1 (1.0)	3 (0.7)	31 (29.5)	111 (27.3)	**51 (48.6)**	**202 (49.6)**	13 (12.4)	68 (16.7)
4	5 (4.8)	19 (4.7)	40 (38.1)	**179 (44.0)**	39 (37.1)	118 (29.0)	11 (10.5)	62 (15.2)
5	7 (6.7)	41 (10.1)	42 (40.0)	**189 (46.4)**	34 (32.3)	77 (18.9)	12 (11.4)	69 (17.0)

Abbreviations: PD, program director; PGY, postgraduate year.
[a]The highest percentages for each group are indicated in bold font.

physician. We also confirmed that residents, particularly more senior residents, perceive that attending physicians are often too busy to teach.[6]

As summarized in Table 2 and noted by other authors,[4] PDs and residents agreed on which activities were education or service; however, PDs ranked all but 1 of the listed activities higher on the educational end of the spectrum. In addition, residents were more likely than PDs to see ambiguity depending on circumstances that varied by year. Predictably, many tasks lost their educational value with residents' increasing experience, with more senior residents appreciating less supervision and increasing independence. A higher percentage of residents than PDs indicating that more service was appropriate for PGY1 residents could reflect either a clearer view of reality by the residents or a greater acceptance of the surgical hierarchy whereby junior residents perform more service-based activities compared with senior residents.[4,15]

The frequent expressions of frustration from the residents at having to provide care for patients on whom they would not operate or who were not on their service have not been reported previously. However, Van Eaton et al[31] predicted that an unintended consequence of reduced work hours would be a potential loss of patient ownership by trainees. They noted the conflict experienced by residents who were unaccustomed to a new and unfamiliar code of professionalism and recommended replacing individual patient ownership, in which a resident was expected to know everything about his or her patient, with team ownership. Coverdill et al[32] also noted that residents continue to struggle with this new professionalism and remain unsure about when to sign out the care of a patient to another resident.

This study has a couple of limitations. Although we sampled a small number of programs, this weakness will have been offset by the mean 64% program response rate. In addition, we relied on self-reported data, which may have been subject to bias.

CONCLUSIONS

Our study highlights residents' concern over the erosion of continuity of patient care, lack of autonomy, and a poor learning environment in a duty hour–limited paradigm. These factors contribute to their perception of some educational activities as service. This is important as we face further work hour restrictions and new regulations about resident supervision. Several steps are necessary for PDs to address the problems posed by the ACGME survey question. First, it is essential to teach our residents to appreciate and value service to the patient as part of their education. Second, we must differentiate meaningful and developmental service activities from scut work. Third, educators must set an expectation to value responsibility in patient care, even as individual continuity of care is affected by duty hour and other legitimate limitations. Finally, in the face of such limitations, we must educate our faculty, as well as our residents, about the concept of team ownership. In the current climate of reduced work hours, residents will spend an increasing amount of time caring for patients on whom they will not operate or operating on patients for whom they will not provide postoperative care. We have a responsibility to appreciate this new training model and to not criticize residents' work patterns as unprofessional when duty hour restrictions impede individual continuity of care. It is clear from our study that separating service from education is impossible when the perception of service or education is largely in the eyes of the beholder. Above all else, residents value attending physicians' teaching and a learning environment. This must continue to be the priority in graduate medical education. Finally, the ACGME might be better served by asking residents to indicate the frequency with which patient care obligations interfere with their ability to participate in organized educational or research activities.

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INVITED CRITIQUE

Asking (and Answering) the Wrong Questions?

Dr Sanfey and her coauthors[1] use this multiinstitutional survey to describe both surgical resident and PD perspectives on the traditional service vs education dichotomy. The annual emphasis on the balance of service and education in the ACGME resident survey highlights the putative importance of establishing these definitions, particularly as they are used by the residents who complete the survey. The authors' use of mixed methods, both quantitative and qualitative, provides a robust evaluation of both the definitions used by PDs and residents and how those correlate with traditional activities.

The authors' closing sentence cuts to what may be the heart of the matter, however, in their implication that the dichotomy created by the current construction of the ACGME questionnaire is false. Human nature dictates that negatively viewed tasks, even when their completion is necessary for patient care, are likely to be perceived as service. The authors cite the influence of a positive educational environment, which includes but is not limited to good teaching, as an important component of learner satisfaction; their citation of the literature is reinforced by comments of survey participants. Emphasizing construction of an optimal learning experience diminishes the focus on service vs education by learners, particularly when the educational benefits of activities that might be viewed as service in a less learner-friendly venue are clearly defined. Perhaps most important, an