

A Shared Workspace for Medicine Subspecialty Fellows

Concept Proposal for Comprehensive Parnassus Heights Plan

Problem:

Subspecialty consultation is common in the care of today's hospitalized patients. A nationwide 2015 study of Medicare patients found that more than 90% of admitted patients have at least one consult called, with a median of 2.5 consultations per admission.¹ Given that most interactions between primary and consulting teams occur at the trainee level,² consultations are important learning opportunities for students, residents and fellows. Unfortunately, physician workflow and hospital design often compromise teaching.

While clinicians calling consults prefer verbal interactions³ and meeting face-to-face is known to facilitate teaching,⁴ in-person communication between primary teams and consultants is limited. In a study of intern-fellow interactions during consultation, 83% of interns reported in-person interaction occurred less than 50% of the time.⁵ Face-to-face communication between consulting services is also rare. Fellows typically work independently in departmental offices and round at arbitrary times— forfeiting the opportunity for interaction across disciplines. This may delay treatments or lead to recommendations for unnecessary procedures that expose patients to additional risk and increase length of stay. Improving the visibility of, communication with, and teaching by consultants could thus positively impact the UCSF True North pillars of Patient Experience, Quality and Safety, Our People, and Financial Strength.

Proposed Solution:

We suggest that the Education Space Working Group design and create a shared workspace for medicine subspecialty fellows. Our interprofessional team of educators, clinicians, and a physician-architect is engaging in a funded, IRB-exempted study of inpatient subspecialty consultation. Our preliminary findings suggest that a shared workspace for fellows would address structural barriers to in-person interaction by co-localizing residents and fellows. It would meet current and future needs in multiple domains of the academic enterprise; promoting collaborative educational and clinical experiences between students, trainees, and faculty.

To be most useful, the workspace should be strategically located near the medicine resident workroom (currently on Moffit 14) where clinical care and consultation are expected to occur. It would need ample space and workstations for 12-15 fellows, a whiteboard, and a table for team based learning and patient discussions. The space could also provide areas for respite and socialization, akin to a “reset room.”⁶ Refreshments would encourage use of the room and help foster a sense of cohesiveness, which may protect trainees from burnout. Meeting the individual needs of subspecialists would also be important. For example, computers should have software for reviewing echocardiograms, endoscopies, and other studies.

We are unaware of any similar efforts to make in-person interactions routine by bringing medical subspecialty fellows together in a common workspace at an academic medical center. Given that consultations are so common, there is enormous potential for UCSF to take a leadership role in demonstrating how shared workspaces can improve workplace learning and healthcare value. This model could be highly generalizable to other departments and institutions— particularly at academic medical centers— which have compelling reasons to improve communication and learning at both the graduate (GME) and undergraduate (UME) level.

Underlying Educational Theory:

Clinicians in training belong to communities of practice and learn by engaging in these communities.⁷ This ‘Workplace Learning’ is a social process, driven by interaction and communication, which helps trainees develop a shared understanding of rules, norms, roles, and responsibilities.⁸ Unfortunately, logistics of modern hospital care, including space design, disfavor in-person interaction; creating challenges for both working and learning.

Working in an environment that fosters learning across roles would improve education and patient care.¹⁰ From the perspective of socio-cultural learning theory,¹¹ a fellow workspace would create “places for formal and informal meetings [that] are essential contributors to learning as much as they are social spaces, for learning is a social process.”¹⁰ In particular, the affordance of a shared fellow workspace would create opportunities for fellows to guide their more junior colleagues through clinical problems; a pillar of workplace learning⁹ and an example of *practice pedagogy*— an “interaction that enrich[es] or augment[s] workplace learning experiences.”¹²

Needs Assessment—Preliminary Results:

To involve end-users in the design process, we conducted surveys and focus groups with interns, residents and fellows. We surveyed 282 trainees (62 interns, 119 residents, and 101 medicine subspecialty fellows) with an overall response rate of 66% (63%, 64% and 69% for interns, residents and fellows, respectively). We also held two separate one-hour focus groups: the first with 11 fellows representing 8 medical subspecialties; the second with eight internal medicine housestaff (four interns and four residents). Key takeaways are as below:

Survey

1. In-person interactions during consultation are infrequent.
2. Housestaff and fellows work in different places and it is hard for housestaff to find fellows. Most meetings between housestaff and fellows are spontaneous (90%) and occur in patient care areas or stairwells (87%).
3. Nearly all fellows (99.5%) value interactions with other subspecialists and 85% desire more such meetings.
4. Most fellows (60%) rarely or never feel like a part of the larger Department of Medicine community.
5. Most fellows would be willing to try working in a common fellow workspace, and 89% of interns/residents would be willing to walk over there on a regular basis to discuss patients in person.

Fellow Focus Group:

1. Space design limits in-person interactions. Some subspecialties don't even have workspace in the hospital!
2. Many fellows are lonely and miss the sense of community they had during residency.
3. In-person interactions are more valuable when giving recommendations than when fielding a new consult.
4. In addition to a shared space, fellows also need private spaces to meet attendings and work uninterrupted.

Housestaff Focus Group:

1. Interns and residents desire more in-person interactions with medicine subspecialty fellows.
2. When multiple consultants are involved, communication seems poor and recommendations often conflict.
3. Space design and travel time are barriers to in-person meetings between primary teams and consultants.

Conclusion:

Subspecialty consultation represents an opportunity for students and trainees to learn from subspecialty fellows. Face-to-face interactions improve teaching and learning, but they occur rarely. Creating a common workspace for medicine subspecialty fellows would positively impact multiple aspects of the academic enterprise by addressing structural barriers to in-person interaction and increasing the sense of community among fellows. Finally, creating the described workspace would position UCSF on the cutting edge of evidence-based design¹³ with the potential to conduct post-occupancy studies and shape future guidelines and practices.

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