BRIEF
REPORTS

Behavioral Science Rounds: Identifying and Addressing the Challenging Issues That Residents Face on a Family Medicine Inpatient Service

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BACKGROUND AND OBJECTIVES: Training residents in the care of hospitalized patients offers an opportunity to integrate behavioral science education with medical care and to foster professional growth, given the severity of coexisting medical and psychosocial problems and the formation of intense transient relationships. Rarely do residents have the time or guidance to reflect on how these experiences and relationships affect them. Weekly behavioral science rounds (BSR) provide dedicated time to reflect on and discuss challenging clinical and professional developmental issues arising during inpatient training.

METHODS: To understand the range of issues that learners experience, we analyzed facilitator notes of 45 consecutive BSR discussions. Through open coding analysis we identified the common topics and recurring themes raised by residents.

RESULTS: The most common topics related to residents' emotional responses, clinical challenges, and interpersonal conflicts. We identified frequently recurring themes, including understanding the power and limitations of the physician, defining roles and responsibilities, and articulating personal beliefs and values. Early first-year residents had difficulty acclimating to increased responsibility and worried about competence; later, they experienced strong emotional reactions, feared becoming cynical, and were apprehensive about future leadership roles.

CONCLUSIONS: Inpatient BSR can serve as an important educational intervention and professional development tool at a critical time in training. BSR requires a commitment of teaching resources, an assurance that they will occur regularly, and a culture of safety in which residents trust their discussions will be confidential and that they will be treated with respect and caring.

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Family medicine has made integration of behavioral health and primary care an essential component of residency education.[1] While most of the effort has focused on ambulatory care, integrating behavioral sciences into inpatient curricula has lagged.[2,3] Inpatient training provides an important context to examine issues of professional development, because of the severity of coexisting medical and psychosocial problems, the intensity of short hospital stays, and the pressured environment for residents whose work is closely observed. In addition, residents continually form intense, transient relationships with patients, families, and health care professionals while making high-stake, time-sensitive decisions. Rarely do they have the time or guidance to consider how the inpatient experience and these relationships affect their clinical care and professional development. To address this need, we developed inpatient rounds to discuss difficult clinical and professional development issues.

Context and Rationale

In 1979, the University of California, San Francisco Family and Community Medicine Residency established the Family Medicine Inpatient Service (FMIS) at San Francisco General Hospital, a publicly-funded safety net hospital. Most patients hospitalized on FMIS are from multiracial/ethnic, underserved communities that face psychosocial stressors (poverty, racism, unstable housing, substance use). The FMIS curriculum applies a family systems approach to the care of seriously ill adults.[4] In 1983, we created behavioral science rounds (BSR) to address residents' clinical and educational inpatient

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experience, allowing them time to reflect and explore their reactions and adaptations to challenging interactions and develop relationship-oriented strategies for their clinical care and growth. Since 1983, more than 450 individual family medicine residents have participated in BSR during each year of residency.

Structure and Format

BSR sessions occur weekly for 1 hour and include the inpatient team of eight family medicine residents, up to two medical students, a fourth-year chief resident, and two facilitators—the family physician inpatient attending and a behavioral scientist faculty member (Table 1). Each resident participates in 32 hours of BSR over 3 years.

BSR begins with team members reflecting on recent inpatient experiences and suggesting potential topics, generally prompted by patient care experiences. The group determines the topic, a team member presents the basic issues, and others add information about key relationships. Invariably the discussion evolves into deeper reflection. Participants share their conflicts with patients, families, and colleagues, their emotional reactions, and how the experience impacts their development as physicians. BSR faculty members avoid putting residents on the spot, in order to create a safe context for shared learning. Senior residents and faculty members frequently offer lessons learned from similar situations. BSR concludes

Table 1: Format of Behavioral Science Rounds

Stage	Task
1. Topic selection (5 minutes)	1. The team takes time to reflect on the previous weeks' experiences on the inpatient service to identify potential topics that would benefit from group discussion. This process helps the team transition from the often hectic experience of the inpatient service to a more focused, reflective mode ("I am struggling with how to talk to this patient about how their substance use keeps landing them in the hospital"; "I have to tell a patient they have metastatic cancer and not sure how, and I know it will be hard for me"; "We have a family meeting today and there is a lot of conflict between them and our team"). 2. Members suggest possible topics they have identified for the team to consider for that BSR session. 3. The group decides together what topic to discuss.
2. Contextualization of topic (10 minutes)	One team member, frequently a first-year resident, presents a brief description of patient and medical or social dilemmas ("When I saw the patient on call, he and his family were really angry at the nurses"; "The patient didn't trust the specialist's recommendations, because she felt he didn't respect her perspective").
3. Clarification of relationship challenges (10 Minutes)	1. Through discussion, the team begins to clarify challenges specific to the patient or situation by: a) sharing information they have about the key people involved in care (eg, family members, primary care provider, consultants, social worker) and the nature of their relationships, including positive and negative patterns of interaction ("I have a good relationship with the patient, but his brother is blaming us for not doing enough to help him"; "The patient seems to trust me even though she doesn't get along with others") b) identifying personal challenges participants face in their professional development ("I am really frustrated with not knowing how to help this patient"; "I go home at night and can't stop worrying about my patients").
4. Reflection on relationships (30 minutes)	Facilitators guide the process of deeper reflection by encouraging discussion/input by all participants and highlighting general themes as they emerge ("From these different experiences, it seems that not being able to control everything you want in the care of patients is really challenging"; "The conflict in the family seems to mirror the conflict we are feeling as a team").
5. Consolidation (5 minutes)	1. Agree on a plan to address the challenges (eg, setting goals for a family meeting; convening an interdisciplinary meeting; determining clarifying questions to present to family members, primary care providers, or consultants). 2. Solicit personal strategies from team members for preventing and dealing with burnout, when issues of well-being arise ("I try to meditate when I leave work to separate the hospital from home"). 3. Conclude by summarizing plans and highlighting generalizable themes for future clinical care and professional formation ("Spending time getting to learn about the patient and their family's lives may help build more trust with the team"; "While we want to be able to cure this patient, it is not often possible. That is hard to come to grips with, but adopting that sense of humility while remaining passionate about our work is important." 4. Follow up on the action plan can occur during the week or at the start of the next BSR.

with the group developing a plan to address relationship issues and sharing strategies for professional formation. Although BSR shares some similarities with Balint Groups (confidentiality, focus on patient-physician relationship), it changes group composition frequently, occurs weekly, explores relationships beyond the patient, actively involves the participant raising the issue, and concludes with an action plan.[5]

Methods

To identify common topics and themes from BSR discussions, the authors used open coding[6] to analyze the behavioral science facilitator's (G.S.) notes written during a sample of 45 consecutive weekly BSR sessions in one academic year 2016-2017. The structure and note-taking process has remained the same since 1983 and did not change during this study. The notes serve to aid facilitation by tracking issues raised; they are not reviewed by facilitators or residents for representativeness. This review retrospectively examined extant notes from the 45 sessions. T.V. and R.H.G. were family medicine faculty attendings who cofacilitated 10 and nine sessions, respectively. Each BSR included two PGY-3 residents, two PGY-2 residents and four PGY-1 residents. Forty-five different residents participated over the time period. Each PGY-3 and PGY-2 resident would have attended eight sessions and each PGY-1 resident would have attended 16 sessions.

All authors independently reviewed the notes to identify initial descriptive codes and rereviewed each note using a constant comparative method to conduct multistaged coding. Open coding of the raw data helped develop categories, axial coding organized these into patterns, and selective coding developed theoretical formulations to link key variables to themes. Authors resolved analytic discrepancies. The University of California Institutional Review Board Human Subjects Committee determined review was not required.

Results

The review of the BSR discussions identified topics frequently raised by residents:

- Coping with emotional responses to the care of hospitalized patients
- Reviewing new/difficult diagnoses with patients and/or families
- Treating challenging clinical conditions (eg, chronic pain, substance use disorders)
- Assessing decision-making capacity
- Addressing management disagreements within the team, family, consultants, and/or primary care clinician
- Managing issues of mistrust and misunderstanding
- Identifying/addressing institutional discrimination and implicit bias in care
- Preparing ourselves, patients, and families for death.

Discussions generally moved to deeper issues that residents commonly struggled with (Table 2). Recurrent themes particular to first-year residents were also identified (Table 3).

Table 2: Themes in Behavioral Science Rounds (BSR)*

Theme	Description	Examples
1. Power of the physician (n=27)**	Residents struggled with the power inherent in their profession. They also often felt challenged having more power than they are comfortable with. BSR discussions helped them reveal their dilemmas about patient autonomy and independence, patient decision making capacity, and physician responsibility. This sometimes translated to residents learning to accept roles of authority that did not initially seem compatible with a shared-decision model.	• "How do I convince this patient to begin treatment?" • "I have a patient threatening to leave against medical advice; what should I do?" • "Do I force this critically ill patient, even use restraints, to complete treatment, or allow them to leave and potentially become sicker or die?"
2. Role and responsibilities (n=25)*	Residents reported they had to clarify their own and other health care professionals' roles and responsibilities. This involved determining what it meant to be the primary care team in a hospital with academic consulting teams from multiple specialties. Decisions about clinical care could become stalled and/or conflicted when different service consultants and the primary team disagreed about the best management strategy. Relationships between the team and other health care professionals (nursing, physical therapy) could become strained if role misunderstandings arose. Identifying these differences fostered discussions of clarifying roles and responsibilities, learning conflict resolution strategies and building collaborative relationships.	• "Oncology recommends radiating the tumor again, but the patient and family have told me they don't want any more treatment if it will reduce quality of life." • "The surgeons told the patient he has cancer without telling us or including us in the conversation." • "The nurses seem to be ignoring our patient."

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Table 2, Continued

Theme	Description	Examples
3. Personal beliefs and values (n=18)*	Participants articulated strong cultural, societal, and spiritual beliefs and values that guide their own identity as physicians and their approach to patient care. These beliefs and values often represented very personal models of medicine that operated at subconscious levels and benefited from conversation and articulation. Discussion helped reveal differences in fundamental assumptions (about health and illness, expectations for care, the roles of the patient, family, and physician) that lead to conflict or misunderstanding in relationships among physicians, patients, and families.	• "I feel ethically compelled to tell the patient her diagnosis; but I am going to be in direct conflict with the family. They said 'Do not tell her she has cancer.' I know they want to protect her, but what do I do?" • "The family wants us to start experimental treatment for his cancer, but we want to move him to palliative care; any further treatment will make him suffer needlessly."
4. Patient factors (n=15)*	Residents reported that the they felt challenged by the complex issues that patients faced, and identified many of them as reflecting serious mental illness, substance use, multiple comorbid conditions, posttraumatic stress, homelessness, poverty, dementia, language discordance, low health literacy, troubled family relationships, and a lack of social supports. Clinical decision making, discharge planning, communication, and relationship building were rarely as straightforward as they had learned from textbooks or lectures. BSR discussions focused on how these factors affect health and care of their patients and how to address these factors.	• "Our patient only speaks Cantonese and is somewhat cognitively impaired; it is hard to know her goals of care?" • "How can we discharge someone who is homeless, has serious emotional problems and won't follow up with outpatient care?" • "This patient spit at a nurse, called me names and won't let us examine him; how can I treat his infection?"
5. Team support (n=14)*	Participants often disclosed thoughts and feelings that had arisen in patient care, especially ones that raise strong emotions (anger, fear, sadness) or biases about patients, families or other health care professionals. They found that their colleagues during BSR frequently provided support and created a place to disclose these personally difficult dilemmas and feelings, validated perspectives when appropriate, discussed how to deal with biases, offered suggestions for coping, and countered a feeling of isolation by building a collaborative team.	• "It makes sense that you are incredibly sad; you are caring for four patients with end-stage cancer." • "I know it feels terrible when patients say demeaning things, so it's natural you feel like it is personal; in spite of this you are continuing to provide excellent care."
6. Meaningful work (n=14)*	Residents reported that they at times lost their sense of purpose and/or value, given the acuity of their patients' conditions, the depth of suffering they witnessed, the rapid pace of inpatient care, and a frequent absence of clear victories. They questioned whether they were becoming cynical or not caring about their patients. Depressive thoughts and emotions arose at times, fearing that they were alone in feeling so troubled. They noted that BSR provided a context to discuss their feelings, to realize that their colleagues often shared their reactions, to understand how context shapes much of their experience, and to rearticulate what they find meaningful in their work.	• "I am angry that people want so much from me." • "I have nothing to give to my family when I get home." • "I have no control over my life, and I am 30 years old." • "Being a doctor seems to mean checking of boxes on my to-do list and not connecting with or even talking to my patients."
7. Errors (n=11)*	Residents reported that the fear of making a mistake was a primary stressor in residency, more so than long hours, sleep deprivation, lack of control, or working in underresourced environments. Residents noted that the inpatient setting intensified this fear, as decisions and behaviors are exposed to colleagues and attendings in their own residency program and among consultants. BSR provided a safe context to discuss their fears and to hear attendings and other residents share their experience with errors.	• "In my first rotation on FMIS, I wasn't even sure if I could order Tylenol." • "I was so afraid of making a mistake." • "I misread the order and gave the patient too much; we caught it in time and there were no consequences, but I feel really bad. And I don't know how to tell her. She'll never trust us again."

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Table 2, Continued

Theme	Description	Examples
8. Uncertainty (n=11)*	Residents discussed how they struggled to find correct diagnoses, the most effective treatment or the most accurate gauge of prognosis. However, they reported that experiencing uncertainty, complexity, and an accompanying sense of failure or frustration were often the norm.	• "What do I tell our patient about what their diagnosis is? Understandably they keep asking, but we really don't know yet!" • "How can I accept the uncertainty of what will happen? I'm supposed to know so I can tell the patient." • "How can I let the patient and family know that even though we don't have easy answers now, I will be there with them." • "How can I convey to my patient and family that they can count on our steadfast commitment to giving the best care while deciding the next steps?"
9. Limits (n=10)*	Residents reported that they wanted to fix the problem that prompted the patients' hospitalization. They struggled to accept that curing was not always possible. This experience was challenging, as the context of the patient being in the hospital sent different signals: the ready availability of extensive sophisticated inpatient technologies and multiple subspecialty services. They found it difficult to accept medicine's limitations. Concerns about not doing enough or not finding optimal inpatient or outpatient resources (housing, substance use treatment, chronic illness support) added to the emotional burdens. They noted that in BSR participants, particularly senior colleagues, offered a realistic perspective of progress in patient care and that building trusting, therapeutic relations, involving patients in decision making, improving a family's understanding, discerning patient's barriers to self-care, and engaging social services and primary care providers were important outcomes.	• "We are discharging this patient without solving their substance use disorder. Nothing will change with their diabetes and heart failure." • "I am taking care of three patients with metastatic disease and nothing I can do will help them." • "This is her fourth hospitalization with complications from her diabetes. No matter what we do she just won't take care of herself."

* While some themes could fit into more than one category, the coding team selected the category most representative of the discussion.

**Number of times theme appeared in the 45 BSR sessions.

Table 3: Themes Discussed in Behavioral Science Rounds Particular to First-Year Residents*

Time of Academic Year	Themes
Early	Difficulty: • Acclimating to the increased responsibility of their new role • Dealing with deep-seated and undisclosed concerns about competence
Middle	Challenges in: • Managing strong emotional reactions ("I am really surprised how angry I am at this patient.") • Navigating conflictual consultations ("I feel disrespected by consultants who won't treat me with respect, since I'm an intern.") • Prioritizing biomedical competency, which seems at odds with continuing to value communication and relationships ("As a medical student all I could do was listen to patients; as a physician, what I should offer is my medical knowledge.")

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Table 3, Continued

Time of Academic Year	Themes
Late	Fears about: • Becoming cynical and calloused ("I can't believe I am beginning to feel a bit disengaged and hopeless that this patient will change; this is the third hospitalization I've cared for them. I don't want to be that kind of doctor.") • Changes incumbent on becoming senior residents on the inpatient service a) Increased responsibility ("I don't think I know enough medicine to lead an inpatient team as a second year resident; I don't know enough about how to supervise the interns or medically care for the patients yet.") b) Decreased closeness with patients and families that they had as interns ("I was the patients' doctor; next year I won't have that close contact.")

*Fifteen first-year residents participated in BSR during the study's time period. Each of them have four rotations on the family medicine inpatient service, which are generally spread evenly throughout the academic year. While some themes could fit into more than one category, the coding team selected the category most representative of the discussion.

Value to Resident Experience

Residents consistently comment in anonymous evaluations on BSR's value as "a space to share and explore very challenging topics," "a space to discuss concerns and fears," "reserved time each week to reflect and discuss an important issue with my colleagues," and "a step-back moment during the busiest months." Residents also view BSR as important for well-being. Given the risk of depression and suicide among physicians,[7,8] BSR offers a context to share emotional reactions, gain support from colleagues, and learn coping strategies.

Discussion

The most common topics raised in BSR were related to residents' clinical challenges, difficult emotional responses, and interpersonal conflicts. Discussions revealed deeper issues they struggled with, including understanding the power and limitations of the physician, defining roles and responsibilities, and articulating personal beliefs and values. Early first-year residents had difficulty acclimating to increased responsibility and worried about competence; later, they experienced strong emotional reactions, feared becoming cynical, and were apprehensive about future leadership roles. Limitations include the retrospective review of extant notes that were taken by one coauthor/coder who facilitated all sessions and were not reviewed by faculty or residents.

Weekly dedicated inpatient behavioral science rounds can serve as an important educational intervention and professional development tool at a critical and vulnerable time in physician training.

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