Ward Rounds With or Without an Attending Physician: How Interns Learn Most Successfully

L. Barry Seltz, MD; Erin Preloger, MD; Janice L. Hanson, PhD, EdS; Lindsey Lane, BM, BCh

From the Department of Pediatrics, Children's Hospital Colorado and University of Colorado School of Medicine, Aurora, Colo
The authors have no conflicts of interest to disclose.
Address correspondence to L. Barry Seltz, MD, Department of Pediatrics, Section of Hospital Medicine, Children's Hospital Colorado and University of Colorado School of Medicine, 13123 E 16th Ave, Aurora, CO, 80045 (e-mail: leonard.seltz@childrenscolorado.org).
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Abstract

Objective: To explore pediatric interns' perspectives on the educational value of general pediatric ward rounds, in particular their rounding experiences with and without an attending physician.

Methods: Qualitative study using individual interviews of pediatric interns (2013–2014) rotating on 2 general pediatric inpatient services at different institutions with different rounding team structures. In accordance with grounded theory methodology, data were analyzed using the constant comparative method. Codes were built using an iterative approach and organized into themes.

Results: Twenty pediatric interns participated in 25 interviews. Data analysis yielded 4 themes: what is being learned; learning environment on rounds; learning and work; and ways of learning. Senior residents generally taught practical aspects of patient care and attending physicians taught broader concepts with references to the medical literature. Rounds without an attending physician were perceived as less formal and promoted collaborative discussions with senior residents. Interns were more uncomfortable during rounds with an attending physician but appreciated how that facilitated their learning. Although patient care tasks provided opportunities for experiential learning, interns frequently perceived them to impede learning during rounds. Intern learning during ward rounds occurred via self-directed learning, interactive learning, and through caring for patients. Brief, clinically relevant teaching pearls and questioning clinical reasoning in a respectful manner were helpful.

Conclusions: Interns learn different content and learn in different ways depending on the presence or absence of an attending physician at rounds. There might be educational value from rounding with teams that include and do not include an attending physician.

Keywords: interns; medical education; ward rounds

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What's New

There might be educational value for interns experiencing ward rounds with and without an attending physician. Rounds without an attending physician facilitate near-peer collaborative learning, and the uncomfortable climate with an attending physician encourages heightened intern preparation and attention.

Ward rounds at academic centers, in which the attending physician, residents, and students meet to discuss patients, come in several different formats that include family-centered bedside rounds (FCR), hallway rounds, sit-down rounds, and card-flipping rounds.[1,2] Ward rounds are considered a major learning opportunity for residents yet literature about their educational value is limited. A recent review concluded that the educational value of ward rounds is an under-researched area with mixed learner perceptions.[3]

One approach to rounds is FCR, in which the attending physician conducts hospital rounds in patients' rooms in the presence of family members.[4] Surveys of pediatric residents reported that FCR improve "nondidactic teaching"[5,6] and a recent qualitative study reported residents learn in FCR through increased patient encounters, attending role modeling, and opportunities for direct observation and feedback.[7] However, limited "didactic teaching" might be a weakness of FCR,[5,6] and residents might be more comfortable asking questions and being asked questions when presenting patients in a conference room rather than at the bedside.[8] Furthermore, ethnographic case studies reported that things that should happen during FCR, including bedside teaching and shared decision-making, do not consistently occur.[9,10]

In addition to rounding formats, the composition of the ward team might affect learners' educational experiences during rounds, including types and numbers of learners and the presence or absence of an attending physician. Studies have reported conflicting findings regarding the perceived educational value of having an attending physician present for ward rounds,[11,12] and thus, the effect of attending physician presence during ward rounds on learning remains unclear.

Pediatric interns at our residency program experience different rounding formats and team structures. In the context of these differences, the objective of our study

was to explore pediatric interns' perspectives on the educational value of general pediatric ward rounds, in particular their rounding experiences, and factors that influence learning, with and without an attending physician.

METHODS

SETTING

Interns (n = 30) from the University of Colorado Pediatric Residency Program have inpatient clinical experiences at Children's Hospital Colorado (CHCO) and Denver Health Medical Center (DHMC). At CHCO the ward team (attending physician, a senior resident, 2 or 3 interns, and 2 or 3 medical and physician assistant students) conducts FCR. Pediatric hospitalists (44 weeks per year), other general pediatricians (4 weeks per year), and chief residents (4 weeks per year) all attend on the wards. A significant number of patients have multiple complex health care issues.

At DHMC the ward team conducts hallway rounds outside the patient room. The senior resident leads rounds without the attending physician Monday through Thursday and the attending physician participates in rounds Friday through Sunday. The composition of the ward team is similar to the team at CHCO. When rounds occur without an attending physician, the attending physician individually sees patients in the morning and then discusses all patients with the senior resident at the end of rounds. Attending physicians at DHMC are community general pediatricians (31 weeks per year), chief residents (12 weeks per year), and hospitalists (9 weeks per year). Patients hospitalized at DHMC are generally less complex and are more likely to be Latino than at CHCO.

Rounds at both institutions begin at 8:30 AM and last for approximately 3 hours. Ward teams round on approximately 15 patients daily although seasonal variation exists.

STUDY DESIGN

We performed a qualitative study using individual interviews of pediatric interns from the University of Colorado. Qualitative methodology from a grounded theory framework was chosen to explore participants' perspectives and answer questions about complex learning environments.[13] Written consent was obtained from study participants and the study protocol was approved by the institution's review board.

PURPOSEFUL SAMPLING STRATEGY

Pediatric interns (2013–2014) were recruited using e-mail at the beginning of their general pediatric inpatient month at CHCO and DHMC. To maximize diversity of the rounding experience, interns were recruited throughout the academic year (July 2013–April 2014) at both sites. Study participants might have been experiencing their first inpatient ward month or might have had previous ward experience at either site. An individual intern could be recruited for up to 2 interviews. We continued sampling interns until qualitative analysis indicated that themes in the interns' comments were repeating, no new themes emerged, and we had a robust understanding of all themes (ie, themes reached saturation).

Table 1. Interview Questions

1. What happened during ward rounds today?
2. What did you learn from rounds today? (*Added "today" to help interns focus their recollection and thoughts*)
3. What have you learned from previous rounds?
4. From whom are you learning during rounds? What have you learned from the senior resident? Attending physician? Others?
5. What are you learning from watching during rounds? (*Added this question to help obtain responses about what interns learn from observation*)
6. What facilitates your learning during rounds?
7. How would you compare rounding with versus without an attending physician?
8. How would you describe the emotional climate of rounds? (*Added this question because interns frequently discussed their level of comfort during rounds*)
9. What suggestions do you have for optimizing intern learning during rounds?

DATA COLLECTION

Two investigators (E.P. and L.B.S.) conducted 25 individual interviews of 20 pediatric interns (5 interns were interviewed twice). Interviews were conducted during interns' general pediatric inpatient rotations and each lasted approximately 20 minutes. Each participant received a $15.00 gift certificate as a token of appreciation. We used a semistructured interview guide (Table 1) that focused on learning content, sources of learning, factors that influenced learning during rounds, and rounding experience on the basis of team structure. As part of our iterative process, we modified our interview guide to build a better understanding of interns' perspectives on emerging themes. Information on intern demographic characteristics were also collected, including gender, ethnicity, and month of year in which the intern was rotating on the inpatient wards. Interviews were audiotaped and transcribed verbatim.

DATA ANALYSIS

Data analysis was conducted simultaneously with data collection and in accordance with grounded theory methodology.[14] Four investigators immersed themselves in and analyzed the data using the constant comparative method.[14,15] One investigator (E.P.) was a senior pediatric resident and another (L.B.S.), a pediatric hospitalist who provided a unique lens in analyzing the data. At least 3 investigators individually reviewed each transcript and developed an initial list of codes. The group built codes using an iterative approach; initial codes were modified and additional codes added to best reflect data content. Using HyperRESEARCH 3.0 (Researchware, Inc., Randolph, MA) to organize the data, all 4 investigators then compared coding as a group and organized codes into themes resolving discrepancies by consensus