Bedside Interprofessional Rounding: The View From the Patient’s Side of the Bed

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Abstract
Background: Bedside interprofessional rounding is gaining ground as a means to improve collaboration and patient outcomes, yet little is known regarding patients’ perceptions of the practice. Methods: This descriptive study used individual patient interviews to elicit views on interprofessional rounding from 35 patients at a large, urban hospital. Results: The findings identified three major categories: 1) about the rounding process; 2) clinical information; and 3) the impact/value of bedside inter-professional rounding. Discussion: Intentionally eliciting and responding to our patients’ views of interprofessional rounding may help us design methods that are patient centered and effective.

Keywords
interprofessional rounding, patient perception, interprofessional care, interprofessional team

Introduction
Background
Interprofessional collaboration (IPC) is the process “in which different professional groups work together to positively impact health care” (1) and is recognized by the World Health Organization as a strategy to improve health-care outcomes (2). Interprofessional rounds or rounding (IR) bring together different disciplines with a goal to share information and collaboratively arrive at a plan of care. Such rounding is one way to improve IPC and has been associated with improvements in length of stay (LOS), patient safety, and ratings of teamwork in inpatient settings (3-5).

However, the impact of such rounding performed specifically at the patient’s bedside remains unclear. Healthcare professionals are increasingly called upon to work in a collaborative manner to accomplish patient outcomes that are timely, cost effective, and safe (6). As IR performed at the bedside becomes a widely used strategy, much of the research has focused on the side of the health-care team members and their views regarding the benefits of IR; less is known regarding the patient’s perceptions of IR. The purpose of this study was to better understand the patient’s view of bedside IR.

Literature Review
A literature review was conducted to determine the current research evidence related to IR conducted in inpatient settings both at or away from the patient’s bedside. We found literature describing the impact of IR on outcomes such as staff and patient satisfaction, teamwork, and adverse events.

Interprofessional rounding that occurs at the bedside can impact the sense of teamwork and value according to Gausvik et al (7). A total of 62 staff including nurses, therapists, patient care assistants, and social workers were surveyed regarding their perceptions on the impact of IR. Staff were divided into 2 groups based on whether the group conducted IR versus those who engaged in traditional physician-centered rounding methods. Staff who participated in IR ranked the domains of teamwork, communication, safety, family communication, and job satisfaction higher than the control group (7).

Menefee described a quality improvement project targeting readmission rates and patient satisfaction by fostering interdisciplinary collaboration through interdisciplinary rounds (8). This pilot study capitalized on the

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implementation of an electronic health record as an opportunity to practice interprofessional models of care on a day-to-day basis. Interdisciplinary care plans and a daily process for IR were implemented. From baseline to the 3-, 6-, and 12-month surveys, it was noted that readmission rates decreased from 14.3% to 9% and patient satisfaction scores increased by 7.5%. Patient satisfaction scores more specifically demonstrated improvements in responses to the question: “I was included in care and treatment decisions” (8). Participating disciplines were interviewed to assess their views of the process and described how the IR had improved communication, equity, efficiency, and the patient centeredness of the team. This study did not provide any statistical analysis to demonstrate the significance of score changes, highlighting the need for further research in this area.

Pritts and Hiller examined the effect of IR which included physician and nurse participation on patient satisfaction scores (9). While the rounding model did not include other members of the interprofessional team, the results showed that patients perceived a higher level of teamwork during their hospital stay with a 5.2% improvement in scores from baseline to 1 year. This improvement was specifically in the domain of patients’ perceptions of staff collaboration in caring for them. This study demonstrates the positive impact of initiating a rounding model at a level 1 trauma center.

Less is known about IR performed at the patient’s bedside. O’Leary et al examined bedside rounding and the outcomes related to patient satisfaction and patient involvement in medical decision-making (10). Both patient interviews and postdischarge satisfaction survey scores were analyzed upon implementing IR at the bedside. The rounding team included nursing staff and hospitalists. The results showed that patients did not identify a significant impact on their satisfaction or involvement with their medical care after experiencing bedside rounding. One limitation noted by this study was that only 54.1% of patients experienced IR on the unit of study, creating challenges in measuring the satisfaction scores based on their data. Also noted, the IR experienced by patients may not have been consistent throughout the stay. This study provides evidence for the need for further research regarding patient experiences with IR and the methods used.

Stein et al described a redesign of inpatient wards as “accountable care units,” which implemented bedside IR guided by a scripted tool that the participants were trained and thereafter certified in (11). The IR team for this study included the nurse, physician, and other health professionals to integrate care for the patient and family. Limitations of this study included a lack of measurement of staff and patient satisfaction as outcomes from the IR process. While quantitative data were not available from this study, a routine forum was available to staff to relay information among themselves as well as with the patients.

Few of the studies above included detailed qualitative data regarding the patients’ perspectives on IR. Our aim, therefore, was to interview patients to gain a better understanding of their perspective regarding bedside IR.

Methods

Setting

This study was conducted on 1 inpatient unit at a large midwestern, tertiary care academic health center and was reviewed and approved by the institutional review board (12). The team on this unit adopted the accountable care team (ACT) model in 2012. The ACT model is centered around the provision of 3 foundational elements for each unit: IPC, leadership, and data-driven decision-making (13). Interprofessional collaboration is fostered in multiple ways including by geographically localizing (or cohorting) providers to a single unit. This increases the interaction between the providers and the unit-based nursing staff, as each provider’s patients are located in a single rather than multiple units. Interprofessional bedside rounding and hurdles are also used to foster IPC. This 51-bed unit specializes in the care of patients with cardiovascular pathology. Valve procedures, vascular procedures, and coronary artery bypass grafting constitute the top 3 discharge diagnoses from this unit. The model of care is one of comanagement between the hospitalist and cardiothoracic surgery, cardiology, and vascular teams. The hospitalist team is co-horted to the unit and is staffed by the week on/week off model. The lead hospitalist on the unit is permanently localized to the unit, while the corresponding partner rotates every 4 months.

Interprofessional Team and Rounding Protocol

The IR team on the study unit consists of a hospitalist, pharmacist, bedside registered nurse (RN), and the nursing coordinator of the unit. Students in any of the aforementioned disciplines and residents or medical students also participate. IRs are conducted daily Monday through Friday at 10:30 AM and typically last between 45 and 60 minutes. The target time per patient is approximately 5 minutes. The team aims to round on approximately 10 patients per day at the patient’s bedside. The members of the team do not undergo formal training regarding IR; rather, new team members are trained by existing members when entering the unit. It is important to note that the individuals comprising the team may routinely round independently and/or with other providers on the unit; however, the team in the study is purposeful and consistently contains all of the aforementioned members. For the purpose of this study, the patients interviewed were all cared for by the same hospitalist.

Patient Sample

All patients interviewed had been admitted to the study unit. A convenience sample of 35 patients was chosen based on the ability to represent the patient population as well as time constraints. The team met after a third of the interviews were
conducted to assess the diversity and number of emerging themes that would guide the need to increase the sample size. Patients were included if they had a minimum of 1 experience with IR on the unit of study during their admission. Patients were identified by the shift coordinator’s daily record of patients who were recipients of IR. Exclusion criteria were delirium from any cause, barrier isolation, and nonverbal patients (documentation of inability to communicate through spoken word). The 35 participants were interviewed individually 1 time during their hospital stay and by the same researcher on conveniently selected days between August 2015 and December 2015.

**Interview Protocol**

Participants included in the study were verbally notified of the credentials of the researcher, the purpose of the study, and were then given a choice to participate or withdraw from the interview. Each semistructured interview lasted approximately 10 to 15 minutes and was conducted in the patient’s room. In addition to the patient, some interviews were conducted in the presence of family/significant others. Demographic data were collected and deidentified to ensure privacy. The patient interview questionnaire is shown in Table 1. Eligible patients were first asked whether they remembered their most recent IR experience. If the patient stated “no,” then the interview was stopped. As the single interviewer was not a part of the team performing IR and was not involved in making health-care decisions for the patient, the likelihood of influencing responses was decreased. Similarly, it increased the likelihood of a consistent approach to each patient interviewed.

**Analysis**

Interview data were captured as handwritten notes by the 1 interviewer. The notes were then transferred to an electronic format for analysis by the same interviewer. The interviews were not audiotaped; however, the handwritten notes were transcribed by the researcher at the conclusion of each day’s interviews to minimize recall bias. Three study researchers used content analysis to guide the initial coding of questions 2a, 3a, 3b, 3c, 4a, 5a, and 6a for subsequent identification of themes representing the patient’s perception of IR. The interview researcher, an RN, was familiarized with the ACT and the IR process after multiple observation days and discussion with staff. A second researcher was a physician engaged in the evaluation of the ACT model. The third researcher was a nursing educator with previous research work related to interprofessional practice and qualitative research on nursing work and models of care. Members of the research team first reviewed data individually and then met to discuss individual coding and potential themes/categories. Final themes/categories were determined through iterative discussion and agreed upon with consensus by the researchers after a second meeting.

**Results**

**Sample Characteristics**

The demographic data are summarized in Table 2. There was a nearly even distribution of males and females. The mean LOS for the entire hospitalization was 8.4 days. Of the 35 eligible patients, 3 (8.5%) did not recall their experience, and no further data other than demographics were collected.

**Qualitative Analysis**

Content analysis of the data revealed 3 thematic categories that described the patients’ perceptions of IR. The major

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**Table 1. Interview Questionnaire.**

| Interprofessional Rounding (IR) Patient Interview Questionnaire |
|---------------------------------------------------------------|
| 1. Explain to patient that it has been documented that the patient has experienced IR. Do you remember the last IR experience? If no: Thank the patient for participating and explain that only patients who remember experiencing IR will proceed with further questions. If yes: Prompt the patient to answer all of the following questions in the context of their most recent IR experience. |
| 2. What did the team discuss that was important to you during your last IR? |
| 2a. Why was it important that they discussed this? |
| 3. Think about your last IR experience. Tell me 3 things that stand out to you about your last IR experience. |
| 3a. Tell me why #1 stood out to you. |
| 3b. Tell me why #2 stood out to you. |
| 3c. Tell me why #3 stood out to you. |
| 4. Is there something the team didn’t discuss that you wish they had discussed? |
| 4a. If yes, tell me why that would have been important to you. |
| 5. Was your most recent IR experience any different than other rounds before that or was it about the same? |
| 5a. If different, tell me what was different. |
| 6. Do you feel that the IR has made a difference in your hospital stay? |
| 6a. If yes, in what way did IR make a difference? |

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**Table 2. Sample Characteristics.**

| Gender, n (%) |  |
|---------------|---|
| Female        | 20 (57.1) |
| Male          | 15 (42.9) |
| Age, years    | 23-88 |
| Range         | 60 |
| Median        | 68 |
| Length of stay, days | 0.5-32.3 |
| Range         | 8.4 |
| Median        | 5.1 |
categories included (1) about the rounding process, (2) clinical information, and (3) the impact/value of the rounding. The following sections provide more detailed information regarding each category.

About the Rounding Process

This category of information was identified in data based on patient descriptions of the IR process. Here, patients provided data that described the “who,” “how,” and “what” of IR, which revealed 3 themes: positive perceptions, negative perceptions, and misperceptions.

The positive perceptions centered on the patients’ recognition of the teamwork displayed during the IRs. One patient stated, “Doctors and nurses came together. Every person in the room had their story straight.” Another patient stated, “I noticed the team and the whole experience was professional. They showed concern” and “worked on medications as a team, which was a big deal to me.”

Some patients recalled the experience less favorably and pointed to the physician-led nature of the rounds and the possible missed opportunities by other team members to contribute. One patient noted, “Nothing stood out because they all stand behind [the doctor] and don’t add anything. They all had something they could have said but didn’t.” Another statement made was, “I felt that it was mostly the doctor talking and other members of the team, like the pharmacist, just stood in the back of the room and didn’t say much.” Logistical limitations were also identified such as, “I couldn’t hear what they were saying.”

Misperceptions about the purpose of the IRs included the perception that the health-care participants other than the physician were learners and not contributors to the IR experience. The following statement represents one of the misperceptions. “I don’t mind the others in the room listening and learning.” Similarly, some patients expressed focus on the physician’s contribution to the conversation rather than the team as identified in the following statement, “I do not pay attention to anybody but Dr X.”

Clinical Information

Clinical information was identified as the second major thematic category. Patients shared in the interview that information about data such as tests, diagnoses, care plans, and discharge plans was discussed during rounds. The content most often identified as a priority revolved around discharge and medications. A patient made the following statement, “When I would get out of here was important to me and that was discussed. The team was able to talk about a plan to go home or possibly go somewhere else.” When patients were asked what was discussed during the IR that was important to them, many simply stated “medications.” Another patient provided more detail stating, “The team worked hard to find what was best for me in terms of medications.” Some patients also mentioned tests and procedures and plans in terms of their care. Much of the data that reflected the term “plan” was used in the context of discharge and medications. The majority of the patients interviewed mentioned clinical information at some point during their interview, highlighting the importance of discussion surrounding the patients’ medical care.

Impact/Value

The third thematic category identified was the impact or the value of the IR for patients. Many patients discussed what the IR meant to them and the way it made them feel. For many, being cared for and listened to was an immeasurable yet tangible feeling expressed. As 1 patient described, “Appreciated the level of empathy/concern, interest for me. Feels as though we are both vested in each other. I hope the staff finds it rewarding like I do.” Another patient described, “They did not just talk but showed they cared. They were concerned about me.”

It is important to note that 15 (46.8%) of 32 patients did not volunteer any information in this category. Several patients expressed that the IR did not make a difference in their hospital stay, that they were indifferent, or that it was an expectation of their hospital stay. For example, “Everything has just gone as expected, I guess. Having the whole team and everything was what I expected.”

Discussion

Effective teamwork is essential to the delivery of quality care in the hospital. Improvements in teamwork are associated with safer care, increased patient satisfaction, and improved nurse retention (14). In recognition, research into best practices surrounding teamwork has been endorsed as a key step in improving health care by several institutions including the Institute of Medicine and the Robert Wood Johnson Foundation (14-16). Strategies to improve teamwork include IR, which brings multiple disciplines together to create a plan of care for patients. IR has previously been described from the vantage point of providers and its impact on patient safety and the ratings of teamwork perceptions among providers (4,5,17). However, few prior studies have explored the patient’s perspective on IR during hospitalization, a perspective that’s critical, especially when rounding is conducted at the patient’s bedside.

The interviews conducted for this study revealed that 15 (46.8%) of 32 patients did not provide any input in the impact/value category, which hints at the possibility that the recognition of the physical structure of the team does not automatically translate into an assumption of teamwork by the patient. It is possible that the collaboration that occurs “behind the scenes” is invisible to the patient and may be lost when the patient is confronted only with the IR experience. Intentionally anticipating and addressing this perception
may be one strategy to help patients and families understand the workings of the “backstage” efforts by the team that occur each day to advocate for their care. Similarly, purposeful engagement of the patient and family in the process is likely to signal the patient centeredness and value of the IR to them. Patients and families should be encouraged to participate as members of the team, adding comments and questions either during or before the IR. IRs at our study site, similar to other institutions, are conducted with a focus on discharge planning. Although time and other logistical considerations may impose constraints on a team’s ability to actively engage patients, our results demonstrate the importance of doing so. It is also important to consider the possibility that some patients simply may not perceive the worth of such efforts. O’Leary et al similarly found that patients’ satisfaction with care or involvement with decision-making was unaffected by the implementation of patient-centered bedside rounds (10). Factors such as personality, education, personal experience, age, generation, previous hospitalizations, and attitudes likely shape how patients view IR. In addition, patients’ abilities and preferences regarding decision-making during acute illness are complex, variable, and dynamic (18). Investigating and understanding these factors and how they interact with IR are beyond the scope of this work but highlight the need for future studies to understand how to individualize care for patients in a way that matters for them.

Observations were noted regarding the lack of participation from all team members during the IR. Introducing and elaborating on the role of all team members prior to the IR may enhance patient’s understanding of each member’s contributions and allow patients to better interact with the team. The team must also intentionally work to educate all new team members to ensure consistency between IR experiences.

The team caring for patients during a hospital stay can vary widely in composition between different hospitals and also between different units within 1 organization. As patients potentially move through different levels of care, it becomes overwhelming to recall the names of their physicians and nurses (19). Patients who were interviewed raised this concern showing that there is a need to balance the complexity added to the patient’s stay by conducting IR against its benefits. Research into the optimal composition and size of the IR team from a patient’s perspective may shed light on this issue.

Patients identified empathy and caring by the team as important attributes. These descriptors underscore the importance of concomitantly addressing the emotional needs of our patients while also addressing physical ailments. Content specific to medications and discharge were important to the patients. Planning of IR should consider the importance of addressing these issues.

This was a single-center study with a small sample size and only included patients with diagnoses related to the cardiovascular system, which may limit the generalizability of our findings. As IR may be structured differently at other hospitals, we cannot comment on how a different process may affect patients’ perceptions. Because the hospitalists lead the IR, researchers were not able to determine whether the impact was diluted by the involvement of multiple physicians due to the comanagement model with specialists. As the focus of this work was on patients’ perceptions of IR, individual experiences of IR were not observed by the researcher, allowing the possibility that the process and/or quality of the IR may have varied among study participants. The provider team on the unit, however, was a stable and mature one and at the time of the study had been working together for over 4 years. In addition, no data were collected about the range of IR experiences across participants and whether number of IRs experienced by patients may have been a factor in responses. A single researcher conducted all interviews, and while this ensures consistency, it does not eliminate responder bias. The mean LOS in the sample interviewed was 8.4 days. Due to extreme outliers, it is important to note that the median LOS was 5.1 days. We are unable to comment on how bedside IR may be perceived for patients whose LOSs are shorter or longer. As the interviewer was not part of the patient’s health-care team, we expected this to minimize any discomfort that the patients may have felt in voicing their opinions about the IR. Conversely, it is hard to predict whether this may have impaired the trust the patient may have formed with the interviewer.

Our work offers a unique insight into how bedside IRs are viewed by patients. The lessons we have learned can be used to inform the structure, content, and delivery of these rounds to maximize their benefit to our patients. Further research into the factors that may affect how rounds are perceived can instruct the improvement and proper deployment of this valuable tool.

Authors’ Note
This information or content and conclusions are those of the author and should not be construed as the official position or policy of nor should any endorsements be inferred by HRSA, HHS, or the U.S. Government.

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