

A Quality Improvement Initiative to Achieve High Nursing Presence During Patient- and Family-Centered Rounds

AUTHORS

Anjali Sharma, MD,¹ Laura Norton, MD,^{1,3} Sandra Gage, MD, PhD,¹ Bixiang Ren, MS,² Amanda Quesnell, MSN, RN,² Kim Zimmanck, MS, RN,² Heather Toth, MD,¹ Michael Weisgerber, MD, MS¹

¹Medical College of Wisconsin, Milwaukee, Wisconsin;

²Children's Hospital of Wisconsin, Milwaukee, Wisconsin; and

³Children's Mercy Hospital, Kansas City, Missouri

KEY WORDS

nursing involvement, patient- and family-centered rounds, quality improvement

ABBREVIATIONS

CHW: Children's Hospital of Wisconsin
PFCR: patient- and family-centered rounds
PHM: pediatric hospital medicine

www.hospitalpediatrics.org

doi:10.1542/hpeds.2013-0055

Address correspondence to Anjali Sharma, MD, Department of Pediatrics, Children's Corporate Center, Suite C560, PO Box 1997, Milwaukee, WI 53201-1997. E-mail: ajsharma@mcw.edu

HOSPITAL PEDIATRICS (ISSN Numbers: Print, 2154 - 1663; Online, 2154 - 1671).

Copyright © 2014 by the American Academy of Pediatrics

FINANCIAL DISCLOSURE: The authors have indicated they have no financial relationships relevant to this article to disclose.

FUNDING: This study was funded by a grant from the Medical College of Wisconsin's Advancing a Healthier Wisconsin Educational Leadership for the Health of the Public.

POTENTIAL CONFLICT OF INTEREST: The authors have indicated they have no potential conflicts of interest to disclose.

abstract

OBJECTIVES: The objectives of this study were to: (1) identify local barriers to nursing presence on patient- and family-centered rounds (PFCR); and (2) increase nursing attendance during PFCR.

METHODS: An electronic survey needs assessment was administered to nursing staff on a single acute medical care unit to identify local barriers to nursing presence on PFCR. Daily tracking of nursing presence on rounds was then performed over a 7-month period. During this time period, 2 Plan-Do-Study Act cycles were conducted. The first intervention was a workshop for nurses about PFCR. The second intervention was the development of a strategy to contact nurses by using a hands-free communication device so that nurses were notified when rounds were starting on their patients. To evaluate the impact of our interventions, a p-chart was generated for the outcome of average daily nursing attendance (%) on PFCR per week over the 7-month period.

RESULTS: Two barriers identified on the survey were: (1) nurses were uncertain if physicians valued their input during PFCR; and (2) nurses were unsure when the physician team would be conducting rounds on their patients. On the p-chart, the average percentage of nursing attendance before interventions was 47%. After the nursing workshop, no change in the mean nursing attendance on PFCR was noted. After initiation of the hands-free contact strategy, nursing attendance on PFCR rose to 80%.

CONCLUSIONS: A nursing contact strategy using a hands-free device led to a sustained increase in nursing attendance during PFCR.

Patient- and family-centered rounds (PFCR) have been identified as an effective model for high-quality patient care. Research has shown that families are more satisfied when they are included on rounds and that patient care is optimal when both the patient and family are included in medical decision-making.¹⁻³ In addition, the American Academy of Pediatrics has endorsed patient- and family-centered care and encourages the practice of PFCR.⁴ In 2012, the American Academy of Pediatrics published a policy statement on family-centered care, which recommended that physician rounds be conducted at the bedside, with the family and the bedside nurse present. In 2 recent studies by pediatric hospitalists, the authors concluded that pediatric hospitalists should strive to promote nursing presence on PFCR.^{5,6}

Recent studies have demonstrated the benefits of having nurses present during PFCR. One study showed that nursing presence on PFCR improved patient

and parent perceptions of team communication.² This study also reported that nursing presence supported parent participation on PFCR. Two recent studies examined nursing satisfaction when PFCR was used. In 1 study, staff satisfaction with team communication increased after PFCR was initiated.⁷ The other study demonstrated that composite nursing satisfaction scores were higher on days when the family and nurse were present on PFCR.⁸

At Children's Hospital of Wisconsin (CHW), the pediatric hospital medicine (PHM) service has been conducting bedside PFCR since 2005. In CHW, before our study, a typical PFCR consisted of the PHM attending physician, a senior resident, 2 to 4 interns, and 2 to 4 medical students rounding at the bedside with the patient and family. Although nursing presence was welcomed, nurses rarely attended. Baseline data collected in 2009 and 2010 revealed that before our interventions, 47% of the PFCR were attended by nurses. A multidisciplinary team, the Family-Centered Rounds Taskforce, was established to improve the quality of PFCR at our institution. The objectives of the current study were to: (1) identify local barriers to nursing presence on PFCR; and (2) increase nursing attendance during PFCR.

METHODS

Study Design

CHW is a 296-bed tertiary care hospital. The PHM teaching service includes residents, medical students, and attending physicians. Each team is primarily ward based but may cover patients in >1 unit. Rounding order is based on patient acuity, readiness for discharge, and resident availability. The current study was performed on a

16-bed acute care medical unit within the hospital. On this unit, the typical patient-to-nurse ratio is 3 to 4 patients per nurse.

The improvement team (ie, the Family-Centered Rounds Taskforce) included hospital administrators, PHM physicians, staff nurses, and nursing leaders.

Planning the Intervention

A 10-question electronic needs assessment survey was administered to daytime nursing staff on the study unit. The questions were formulated based on information gathered from available literature regarding nursing presence on PFCR and discussion with PHM physicians and nursing leaders. This survey was conducted to better understand nursing attitudes toward PFCR at our institution and to help determine what interventions would be helpful in increasing nursing presence on PFCR. Using a 5-point Likert scale, the survey queried current nursing practices and attitudes regarding PFCR, local barriers to nursing attendance on PFCR, and techniques used by nurses and physicians to promote active nursing participation on PFCR. Five questions addressed current nursing practice and perception regarding PFCR; 1 multifaceted question addressed local barriers to nursing attendance on PFCR; and 4 questions addressed nursing and team techniques to facilitate nursing participation on PFCR.

Interventions

Two Plan-Do-Study Act cycles were conducted. The first intervention was a workshop designed to educate nurses about the importance of PFCR, to encourage interest in PFCR, and to promote the development of skills for effective nursing participation on PFCR. This intervention was chosen

to promote and encourage interest in PFCR. The sessions were facilitated by 3 PHM physicians during 4 sessions with 6 to 10 nurses in attendance per session. The sessions were inclusive of the entire nursing unit staff consisting of 34 nurses, including both the daytime and nighttime nursing personnel. Each session lasted ~60 minutes. During the workshop, the results of the needs assessment survey were reviewed in a didactic session. Key themes for effective nursing participation were introduced and discussed within the group. These themes included support for families, clarification of current patient status, feasibility of the daily plan, and ongoing assistance with discharge planning. These themes were formulated by using content themes derived from structured group interviews of PHM physicians and needs assessment survey of the nurses. They were reinforced by using a team-based, rounds simulation role-playing exercise based on previous successful workshops for physician team members.⁹

The second intervention was the development of a strategy to contact nurses by using a commercially available hands-free communication device. This nursing contact strategy was chosen in response to the barriers identified on the survey. The hands-free communication device was chosen specifically because it was already being used on the study unit for nursing communication. The unit staff and medical teams were provided education about the process for the nursing contact strategy by 1 of the study team members. Before rounds, the unit administrative staff printed out a sheet containing patient names, room numbers, and nursing assignments. A member of the medical team (typically the medical student) would then

use this assignment sheet to contact each nurse 5 to 10 minutes before each patient encounter. The medical team member used the hands-free communication device to contact the nurse, who would become aware of the call with the speaker's recorded voice stating there was a call from the rounding team. If the nurse accepted the call, the team member could then speak to the nurse, alerting him or her to rounds initiation on his or her patient. This team member then marked whether the nurse was present on rounds. Data were collected 7 days per week and included all of the patients who were seen by PHM physicians. The resident team also manages patients who are not seen by PHM physicians, and these patients were not included in the study. The order of patient encounters was not altered based on nursing patient assignment; each nurse was therefore contacted before each patient encounter.

Project Outcome

The primary process measure was the completion rate of the daily contact summary form. The primary outcome measure was the average percentage of patient encounters with a nurse present on PFCR.

Data Collection

Data were obtained via daily tracking of nursing presence on rounds by a member of the physician team over a 7-month period (April 2011–October 2011). The average was calculated weekly throughout the 7-month study period. A p-chart was generated to display the weekly average percentage of nursing attendance on PFCR. Weeks that contained <2 days of data collection were excluded from the analysis. This study was approved as exempt by the CHW institutional review board.

RESULTS

During the baseline data collection period (11 weeks), 2 weeks were excluded. During the first postintervention period (9 weeks), 2 weeks were excluded. During the second postintervention period (10 weeks), 1 week was excluded. All excluded weeks were the result of inadequate data collection. Data were considered inadequate if the contact summary sheet was not completed for at least 2 days during that week.

Survey Results

Thirteen of 15 daytime nurses completed the 10-question survey (87% response rate). However, not all nurses completed every question. Of the questions that addressed nursing perception and attitude toward PFCR, nurses strongly agreed that PFCR had a positive impact on patient care and a positive impact on their ability to care effectively for their patients (Table 1). Similar attitudes were informally identified in the interactive discussion during the nursing workshops.

Table 2 summarizes the survey questions regarding proposed barriers to

nursing attendance on PFCR. The most frequently cited barrier was “not knowing when the team will be rounding on my patient.” Most nurses did feel that their input was valued on rounds and felt comfortable participating on rounds; thus, these topics were rated as less substantial barriers. Most comments in the “other” category for barriers were related to the lack of team communication with the nurse before starting rounds and competing tasks.

The information gained from the remaining 4 survey questions addressed effective rounding techniques. These were used to augment education in the workshop.

Nursing Presence on PFCR

The daily contact sheet was completed 121 (56.5%) of 214 days during the 7-month data collection period. Figure 1 shows the weekly percentage of nursing presence during the 7-month period. The average percentage of nursing attendance before interventions was 47%.

Intervention 1 was the nursing workshop, with 33 of a total of 34 staff

TABLE 1 Answers From the Needs Assessment Survey Related to Nursing Attitudes and Practice (N = 12)

In general, how often do you attend family-centered rounds on your patients?	Average: 2.75 0 = Never to 4 = Most of the time or always
Attending family-centered rounds helps me more effectively care for my patient.	Average: 3.67 0 = Strongly disagree to 4 = Strongly agree
I think having the bedside nurse present during family-centered rounds has a positive impact on patient care.	Average: 3.75 0 = Strongly disagree to 4 = Strongly agree
Nurses have many tasks to do that could compete with the task of attending family-centered rounds. Where do family-centered rounds fall on your priority list?	Average: 2.67 0 = Not a priority to 4 = Top priority
How often do you speak during family centered rounds (ie, offer new information, answer a question, clarify a point)?	Average: 3.17 0 = Never to 4 = Most of the time or always

Average rating for each question, based on the scale noted for each question.

TABLE 2 Answers to Survey Question Related to Barriers to Nursing Attendance on PFCR and Degree to Which They Are Barriers

Answer Options	Rating Average
Not knowing when the team will be rounding on my patient	3.83
Rounds on my patient takes too much of my time	2.33
I don't think my input is valued during rounds	1.50
I have too many competing tasks to attend rounds	3.25
I don't feel comfortable participating in rounds	1.08
Other	2.50

1 = not a barrier at all; 2 = minimal barrier; 3 = somewhat of a barrier; and 4 = significant barrier.

nurses in attendance. After intervention 1, no change in the mean nursing attendance was noted.

Intervention 2, the contact strategy, was then initiated with the hands-free communication device. After this intervention, the nursing attendance rose to 80%. This increase represented a significant shift above the original mean.

The overall mean nursing attendance on PFCR for the entire 7-month time period was 60%.

DISCUSSION

Our study demonstrated a sustained increase in nursing attendance on PFCR after initiation of a nursing contact strategy with the use of a hands-free communication device. This intervention was selected to address the most commonly cited barrier to nursing attendance on PFCR: “not knowing when the team will be rounding on my patient.” Contacting each bedside nurse 5 to 10 minutes before the initiation of the patient encounter likely provided the nurses enough time to complete tasks and find coverage for other patients if needed. The hands-free communication device was already used for nurse-to-nurse communication by the study unit; therefore, there were no added costs for this intervention. Although we only studied 1 type of device, we speculate that other devices already in use (eg,

nurse phones) may be as effective in a nursing contact strategy without any additional costs.

Our survey results and discussions at the nursing workshops indicate a study unit culture in which nurses are comfortable participating in PFCR and believe their presence on rounds has a positive impact on patient care. This positive perception of PFCR before the nursing workshops may have mitigated any potential benefit from these workshops, which were designed to promote nursing confidence, encourage skills development, and outline the importance of nursing presence on PFCR. However, we speculate that this positive perception of PFCR among nursing staff before our interventions likely contributed to the improvement in nursing presence after the initiation of the contact strategy.

The advantages of nursing presence on PFCR have been identified and include better team communication, parental support by nurses, and improved staff

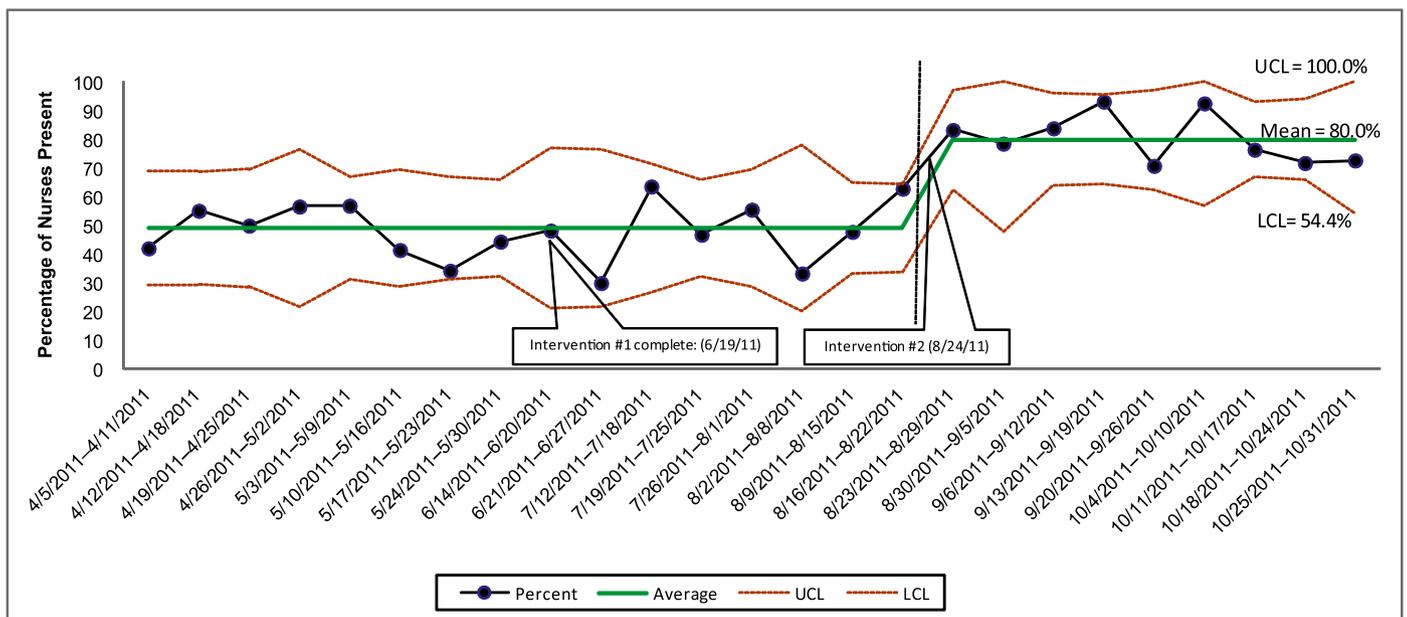


FIGURE 1 P-chart depicting the average nursing presence according to week. LCL, lower control limit; UCL, upper control limit.

satisfaction scores.^{4,5} With increasing interest in optimization of patient- and family-centered care, the importance of developing cost-effective methods for improved staff and family communication is clear.

We identified several limitations in this study. First, inconsistent data collection caused variability in the number of data points averaged per week. Secondly, this study was performed on a single acute care unit in which the nursing leadership was devoted to the concept of PFCR. It may be difficult to generalize these results to nursing units in which the leadership team is less invested in PFCR. A third limitation is that we did not assess a balancing measure, and it is possible that rounds were longer with nursing involvement. In addition, the needs assessment survey developed was not previously used or validated. Another limitation of the survey is that the nurses on the targeted acute care unit were aware of physician interest in PFCR, which may have biased their responses to the survey questions. A final limitation is that we did not survey nurses after our interventions.

CONCLUSIONS

A hands-free communication tool led to a sustained increase in nursing presence on PFCR. The workshops alone did not lead to a sustained increase in nursing presence; however, our study was not designed to evaluate other potential benefits of these workshops. Future steps should include studying clinical outcomes related to nursing presence on PFCR.

ACKNOWLEDGMENTS

The authors thank the students, residents, nurses, and attending physicians of CHW who so willingly participated in this quality improvement project and made changes in their workflow to enhance the quality of PFCR. They also thank the Quality Rounds Initiative team and Advancing Healthier Wisconsin for funding support.

REFERENCES

1. Muething SE, Kotagal UR, Schoettker PJ, Gonzalez del Rey J, DeWitt TG. Family-centered bedside rounds: a new approach to patient care and teaching. *Pediatrics*. 2007;119(4):829–832.
2. Latta LC, Dick R, Parry C, Tamura GS. Parental responses to involvement in rounds

on a pediatric inpatient unit at a teaching hospital: a qualitative study. *Acad Med*. 2008;83(3):292–297.

3. Knoderer HM. Inclusion of parents in pediatric subspecialty team rounds: attitudes of the family and medical team. *Acad Med*. 2009;84(11):1576–1581.
4. Committee on Hospital Care and Institute for Patient- and Family-Centered Care. Patient- and family-centered care and the pediatrician's role. *Pediatrics*. 2012;129(2):394–404.
5. Mittal VS, Sigrest T, Ottolini MC, et al. Family-centered rounds on pediatric wards: a PRIS network survey of US and Canadian hospitalists. *Pediatrics*. 2010;126(1):37–43.
6. Bhansali P, Birch S, Campbell J, et al. A time-motion study of inpatient rounds using a family-centered rounds model. *Hospital Pediatrics*. 2013;3(1):31–38.
7. Rosen P, Stenger E, Bochkoris M, Hannon MJ, Kwok CK. Family-centered multidisciplinary rounds enhance the team approach in pediatrics. *Pediatrics*. 2009;123(4). Available at: www.pediatrics.org/cgi/content/full/123/4/e603.
8. Rappaport DI, Ketterer TA, Nilforoshan V, Sharif I. Family-centered rounds: views of families, nurses, trainees, and attending physicians. *Clin Pediatr (Phila)*. 2012;51(3):260–266.
9. Weisgerber M, Aylor M, Mittal VS, Toth H. Rounding like a ninja: preparing faculty and team to empower senior residents during family-centered rounds. Workshop Presentation at the Pediatric Academic Society National Meeting; April 30–May 3, 2011; Denver, CO.

A Quality Improvement Initiative to Achieve High Nursing Presence During Patient- and Family-Centered Rounds

Anjali Sharma, Laura Norton, Sandra Gage, Bixiang Ren, Amanda Quesnell, Kim Zimmanck, Heather Toth and Michael Weisgerber

Hospital Pediatrics 2014;4;1

DOI: 10.1542/hpeds.2013-0055

Updated Information & Services	including high resolution figures, can be found at: http://hosppeds.aappublications.org/content/4/1/1
Supplementary Material	Supplementary material can be found at:
References	This article cites 7 articles, 4 of which you can access for free at: http://hosppeds.aappublications.org/content/4/1/1#BIBL
Permissions & Licensing	Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at: http://www.hosppeds.aappublications.org/site/misc/Permissions.xhtml
Reprints	Information about ordering reprints can be found online: http://www.hosppeds.aappublications.org/site/misc/reprints.xhtml

Hospital Pediatrics®

AN OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

**A Quality Improvement Initiative to Achieve High Nursing Presence During
Patient- and Family-Centered Rounds**

Anjali Sharma, Laura Norton, Sandra Gage, Bixiang Ren, Amanda Quesnell, Kim
Zimmanck, Heather Toth and Michael Weisgerber

Hospital Pediatrics 2014;4;1

DOI: 10.1542/hpeds.2013-0055

The online version of this article, along with updated information and services, is
located on the World Wide Web at:

<http://hosppeds.aappublications.org/content/4/1/1>

Hospital Pediatrics is the official journal of the American Academy of Pediatrics. A monthly publication, it has been published continuously since 1948. Hospital Pediatrics is owned, published, and trademarked by the American Academy of Pediatrics, 345 Park Avenue, Itasca, Illinois, 60143. Copyright © 2014 by the American Academy of Pediatrics. All rights reserved. Print ISSN: 1073-0397.

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN®

