The impact of a hospitalist on role boundaries in an orthopedic environment

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Purpose: Hospitalists specialize in the management of hospitalized patients. They work with several health care professionals to provide patient care. There has been little research examining the perceived impact of the hospitalist’s role on staff working in an orthopedic environment. This study examined the experiences of staff across several professional backgrounds in working with a hospitalist in an orthopedic environment.

Participants and methods: A qualitative descriptive approach was taken to investigate the experience of staff working with a hospitalist at a specialized orthopedic hospital. Purposive sampling was used to recruit interview participants including nurses, internists, pharmacists, physiotherapists, anesthetists, senior administration, and orthopedic surgeons to the point of theoretical saturation, which occurred after 12 interviews. Interviews were coded, and these codes were combined into categories and predominant themes were identified.

Findings: Overall, staff believed that the hospitalist role was a positive addition to the facility. The role benefitted patients and supported the clinical well-being and education of staff. Many staff felt the hospitalist had no impact on their workload, but others reported that their work had decreased or increased. Several described the potential for role overlap between the hospitalist and other physicians.

Conclusion: The importance of interprofessional collaboration in the implementation of the hospitalist role was a recurring theme in our analysis. This study demonstrates the importance of educating staff about the hospitalist role boundaries prior to implementing hospitalist care.

Keywords: interprofessional collaboration, qualitative description, hospitalist

Introduction

The hospitalist is a physician who is responsible for providing full-time care to hospital inpatients. 1 This role was first introduced in 1996 in the United States, 1 and is replacing the initial model for inpatient care which required a family physician to admit patients and manage their care throughout their hospital visit. The emerging trend, hospitalist medicine, 2 is being adopted by hospitals around the world because of the abundant inpatient care it provides. The majority of hospitalists are physicians who specialize in pediatrics, family practice, or internal medicine.

Research conducted on this emerging role has associated the hospitalists with: shorter length of hospital stay, 3–7 better quality of care, 4,5,8 improved efficiency, 3,6,7 effective and superior inpatient knowledge and education, 9 shorter time to consultation and surgery, 3,7 higher patient satisfaction, 6 and lower costs of care. 4,6,7 In comparison to traditional attending physicians, most research to date has been very positive about the hospitalist role. According to this research, hospitals with hospitalists continue
to have significantly higher odds of meeting indicators for better quality of disease treatment and diagnosis, patient counseling, and prevention.\textsuperscript{8}

In addition to these measures of quality, there has been little research examining the perceived impact of the hospitalist role on staff workload. Nonetheless, hospitalist and surgeon co-management of patients has been speculated to offer many advantages for health care professionals.\textsuperscript{10} Physician trainees evaluated hospitalists more highly for teaching effectiveness, knowledge of relevant subject matter, communication goals, and provision of appropriate feedback to that of traditional attendings.\textsuperscript{9,11,12} Surgeons and nurses treating arthroplasty recipients preferred the hospitalist model of care compared to traditional surgeon-medicine management.\textsuperscript{3} Nurses’ workload may be reduced,\textsuperscript{13,14} and surgeons and specialists may have more time to dedicate to their area of expertise when working with a hospitalist.\textsuperscript{15} Yet some primary care physicians have voiced concerns that they no longer feel involved in patient care when their patients are admitted to hospitals with hospitalists.\textsuperscript{16} Primary care physicians have recommended that hospitalists provide them with admission and discharge information in a timely manner.\textsuperscript{17} Elsewhere, it has been argued that interprofessional collaboration is essential for the success of the hospitalist role.\textsuperscript{18}

One aspect of interprofessional collaboration is defining role boundaries. Some health care professionals have described the blurring of professions as positive, but for others it was concerning.\textsuperscript{19} Professionals who had confidence in their own positions and understood the roles of other staff members were not threatened by role blurring.\textsuperscript{20} Physiotherapists and occupational therapists working in stroke rehabilitation felt role overlap was inevitable and beneficial to patients, but could result in professional insecurities.\textsuperscript{21} However, many of the participants considered their role in stroke rehabilitation as part of a continuum of care as opposed to overlapping roles. There is evidence that professional cultures in health care professions may act as barriers to interprofessional collaboration.\textsuperscript{22} Despite evidence that interdisciplinary team members must negotiate their roles, our research team was unable to locate any previous qualitative work investigating the perceived impact of hospitalists working in surgical wards on other health care professionals.

To address this gap, our study explored the perceived impact of working with a hospitalist from the perspective of other staff including nurses, internists, anesthetists, pharmacists, physiotherapists, senior administration, and orthopedic surgeons in an orthopedic environment.

**Participants and methods**

This research was conducted in a specialized facility that performs elective orthopedic procedures. This facility has less access to medical resources than larger tertiary care centers, and the patient population is largely comprised of older adults who tend to have comorbidities. Currently, one full-time male hospitalist is responsible for managing inpatient care. Prior to the hospitalist role, there was no full-time primary care physician to manage patient health concerns. Internal medicine physicians provided on-call coverage, but they often could not assess patients until the end of the day.

This study was reviewed and approved by the local research ethics board and written participant consent was obtained prior to the interviews. This qualitative descriptive study\textsuperscript{23,24} explored the experience of staff working with a hospitalist at a specialized orthopedic hospital. The hospitalist was involved in designing this study and provided feedback on the final manuscript. Qualitative description permits the perceived impact of the hospitalist role on staff to be summarized in everyday terms.\textsuperscript{23} The researchers took a constructivist approach to this study so that data collection was aimed at discovering and exploring participants’ experiences, and analysis was aimed at making sense of these experiences.\textsuperscript{23} A qualitative descriptive approach was particularly suitable for our study purposes as it allows staff experiences to become part of the evidence base on which clinical services are delivered.

Purposive sampling employing a snowball technique was used to invite staff to participate in a qualitative interview.\textsuperscript{25} An email was distributed to all staff working at the orthopedic facility requesting their participation in this study and inviting them to contact a research assistant to arrange an interview time. All staff who expressed an interest were interviewed. In keeping with snowball interviewing, each staff member was asked to recommend other potential participants at the end of the interview. These staff members were sent a note requesting their participation. All interviews were conducted by one of two research assistants (SB or MJ). Both interviewers had limited familiarity at the time with the staff members participating in this study. Participants selected the time and location of their interviews, with the majority occurring during regular work hours.

One pilot interview was conducted to ensure the feasibility of the interview guide. Subsequently, 12 participants were interviewed for this study until two researchers determined that saturation had been reached (FW and SB). Qualitative sampling requires that enough data be generated to sufficiently explore the issues under investigation.\textsuperscript{25} The data...
reach a point of saturation when no new information or themes are generated, and at this point a decision is made by the research team to stop interviewing participants.

A semi-structured interview guide was developed to explore staff responses to the role of the hospitalists, the perceived impact of this role on their daily work, and the perceived impact of this role on patient care (Appendix 1). Interviews were audio recorded, transcribed, and entered into NVivo 8® (NVivo qualitative data analysis software, Version 8; QSR International Pty Ltd, Victoria, Australia), a qualitative software program.

Data collection and analysis was carried out in an iterative fashion. Data was transcribed and coded concurrently while interviews were still being carried out. All identifying information was removed from the transcripts by a nonclinician prior to being reviewed by the team. Three members of the research team (FW, SB, and MJ) independently read a subset of interview transcripts to identify codes. The researchers then met to compare their analyses and developed a codebook used to assist the subsequent coding. The codes were combined into categories and predominant themes were identified.

### Findings

Twelve staff members were recruited including nurses, internists, anesthetists, pharmacists, physiotherapists, senior administration, and orthopedic surgeons. The findings of this study have been arranged into themes and illustrative quotes (Table 1).

#### Impact on patient care

Overall, staff felt that the hospitalist role was a positive addition to the facility and identified several benefits. Some of the reported benefits for patients included: improved patient safety; expedited transfers; enhanced communication with their family and primary care physicians; and better continuity of care. The staff valued the holistic approach taken by the hospitalist:

> So the hospitalist is able to look at [patients] in a big-picture kind of way, not just their orthopedic injury but whatever they’ve had from their trauma, from the infection, etc. (Number 5; Anesthetist)

#### Impact on enhanced clinical well-being of staff

Overall, the hospitalist role positively impacted the clinical well-being of staff. For the staff, the hospitalist provided education, medical orders, and a decreased risk of liabilities. Staff commented on particular traits of the hospitalist that made him a positive addition to the facility including being caring, respectful, encouraging, and knowledgeable. Most staff

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**Table 1** Themes and illustrative quotes

<table>
<thead>
<tr>
<th>Theme</th>
<th>Illustrative quotes</th>
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<tbody>
<tr>
<td>Impact on patient well-being</td>
<td>So the hospitalist is able to look at [patients] in a big-picture kind of way, not just their orthopedic injury but whatever they’ve had from their trauma, from the infection, etc. (Number 5; Anesthetist)</td>
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<tr>
<td>Impact on clinical well-being of staff</td>
<td>[The hospitalist] has a pretty good list of contacts now … he knows who to call to talk to so that transfers can happen a bit quicker … So that certainly is a little more peace of mind for us. (Number 6; Nurse)</td>
</tr>
<tr>
<td>Impact on staff work practices</td>
<td>Knowing that he has the ability and the willingness to educate staff on the spot … frees up my time to some degree. (Number 1; Nurse)</td>
</tr>
<tr>
<td>Perceived benefits to other professions</td>
<td>Sometimes he’ll say, ‘I’m not at the hospital, can you go write the order?’ … I call it a make-work. (Number 7; Pharmacist)</td>
</tr>
<tr>
<td>Importance of interprofessional collaboration to implementation of hospitalist role</td>
<td>The nurses, I think, find it easier contacting [hospitalist] than they would getting hold of the internist on call. (Number 12; Internist)</td>
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<tr>
<td></td>
<td>The surgeons are very good surgeons, technically, and they can put in joints, but they’re not very good sort of general internal medicine type of people. (Number 5; Anesthetist)</td>
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<td></td>
<td>He also provides a really good link with the family physicians, which I don’t think we had all that much before. (Number 9; Administrator)</td>
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<td></td>
<td>He can call about my patients, and he’s happy for me to call him at any time about my patients as well. (Number 11; Surgeon)</td>
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<tr>
<td>Potential for conflict</td>
<td>[The hospitalist] consults us frequently, like on a daily basis. (Number 10; Pharmacist)</td>
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<td></td>
<td>I think that one of the reasons why the hospitalist works well here is because the surgeons recognize that they’re orthopedic surgeons, they aren’t the experts in medical fields, and the other medical internists are also busy enough with their patients … that they don’t get in a flap or in a snit and feel like someone’s stepping on their toes with someone else writing orders. (Number 6; Nurse)</td>
</tr>
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</table>
expressed their desire for increased hospitalist coverage because there is only one hospitalist assigned to this center, so when he or she is on vacation or is busy, the time required to assess patients increases. The hospitalist was described as being easy to contact and had a quick response time. This reassured nurses and surgeons that their patients received adequate care. For example, staff commented that they felt more comfortable knowing that the hospitalist facilitated patient transfers:

[The hospitalist] has a pretty good list of contacts now … he knows who to call to talk to so that transfers can happen a bit quicker … So that certainly is a little more peace of mind for us. (Number 6; Nurse)

The hospitalist also provided education to support staff. Nurses commented that the hospitalist would take time to explain his diagnosis and treatment plans. One participant described working with the hospitalist to develop protocols and training exercises for the nursing staff when a new technology was introduced.

Impact on staff work practices

Although staff uniformly agreed that the role of the hospitalist improves patient care, there was variation in the perceived impact on actual staff work practices (distinguished from well-being).

Knowing that he has the ability and the willingness to educate staff on the spot … frees up my time to some degree. (Number 1; Nurse)

That’s no different than what I did before, except before I would ask the medicine doctors versus [hospitalist]. So my practice hasn’t changed at all. (Number 8; Surgeon)

Sometimes he’ll say, ‘I’m not at the hospital, can you go write the order?’ … I call it a make-work. (Number 7; Pharmacist)

It is important to acknowledge that staff from the same professions had different experiences with the hospitalist. For example, the surgeon above reported that the hospitalist had no impact on his work, but other surgeons described having more time to focus on surgery. Accounts of the impact of the hospitalist’s role on staff workload also varied among nonphysician staff. The hospitalist’s ability to intervene with patient medical complications and arrange patient transfers eased the workload of these staff members; however, the hospitalist introduced new screening protocols and medical orders that increased the workload for some of them. All physician staff described the hospitalist role as freeing up their time, but only nurses and pharmacists commented that increased patient screening and medical orders increased their workload.

Perceived benefits to other professions

Each professional group spoke about the perceived benefits of the hospitalist on other professions. For example, staff from the departments of anesthesiology, internal medicine, orthopedic surgery, and administration commented that the nursing department had benefitted from the addition of the hospitalist role because nursing staff had quicker access and were more comfortable contacting the hospitalist than a surgeon or internal medicine physician. One participant commented:

The nurses, I think, find it easier contacting [hospitalist] than they would getting hold of the internist on call. (Number 12; Internist)

Nursing, physiotherapy, and administration staff felt surgeons benefited from the hospitalist role because it freed up the surgeons’ time. Staff from the departments of anesthesiology, internal medicine, and nursing commented that the skills of surgeons were best suited for orthopedic conditions:

The surgeons are very good surgeons, technically, and they can put in joints, but they’re not very good sort of general internal medicine type of people. (Number 5; Anesthetist)

Although it was the internal medicine physicians that were on-call to manage patient complications prior to the implementation of the hospitalist role, only nursing and surgical staff mentioned the benefits of the hospitalist for internal medicine.

Importance of interprofessional collaboration to the implementation of the hospitalist role

Overall, staff felt that the role of the hospitalist worked well at this particular center and attributed its success to having staff that were supportive of the role and the particular individual who was assigned as the hospitalist. Staff explained that the hospitalist seemed to enhance collaboration among professionals:

He also provides a really good link with the family physicians, which I don’t think we had all that much before. (Number 9; Administrator)

He can call about my patients, and he’s happy for me to call him at any time about my patients as well. (Number 11; Surgeon)
[The hospitalist] consults us frequently, like on a daily basis. (Number 10; Pharmacist)

The hospitalist communicated with primary care physicians and liaised with other professionals to manage the inpatient care of patients.

Potential for conflict

A few staff members commented that although the role worked well at this particular center, there was a potential for the hospitalist role to create interprofessional conflict:

I think that one of the reasons why the hospitalist works well here is because the surgeons recognize that they’re orthopedic surgeons, they aren’t the experts in medical fields, and the other medical internists are also busy enough with their patients ... that they don’t get in a flap or in a snit and feel like someone’s stepping on their toes with someone else writing orders. (Number 6; Nurse)

However, no staff reported concerns about interprofessional conflict between the hospitalist and other staff at this center.

Discussion

The existing literature focused on exploring the impact of the hospitalist role on patients and health care costs. There has been little attention paid to the impact the hospitalist role has on other staff members within a hospital. This study examined the impact of the hospitalist role on staff from the departments of nursing, surgery, medicine, anesthesiology, physiotherapy, pharmacy, and administration. Most study participants reported that they felt the hospitalist positively influenced patient care by increasing patient safety, expediting transfers, enhancing communication, and providing continuity of care. The hospitalist supported other staff members in the hospital by providing medical directives and education.

However, the impact of the hospitalist on staff workload was not uniform among participants. Many staff members were undecided regarding the impact the hospitalist had on their workload, but others reported that their work had increased or decreased. The staff agreed that the hospitalist role worked well in this particular facility, but that there was a potential for interprofessional conflict if a hospitalist was placed in the wrong environment.

The participants in this study were asked to define their role at the beginning of each interview. Throughout the study they were asked to comment on the impact of the hospitalist on their work. Participants often expressed views regarding how the hospitalist was regarded by other professions. For these participants, there was potential for role overlap between hospitalists and other staff. As a result, the importance of interprofessional collaboration to implementation of the hospitalist role was a recurring theme in our analysis. The patients being treated by the hospitalist had been admitted for elective orthopedic surgery. Numerous physicians were working with these patients including the hospitalist, the surgeon, the internist, and the primary care physician. Several participants discussed the possibility of conflict among these professions and the importance of clear boundaries. The hospitalist role may have worked well in this particular center because professional roles appeared to have clear boundaries where surgeons focused on orthopedic problems, internal medicine physicians operated the preoperative assessment clinic, and the hospitalist managed medical problems that were not related to orthopedics. Some staff members elaborated that there was a potential for conflict if someone did not understand their role.

The role boundaries between the hospitalist and nurses, pharmacists, and physiotherapists created both positive and negative impacts. The positive impacts were that the hospitalist would educate other staff members, particularly those in nursing, and that he would provide support and medical orders as necessary. Many of the staff members commented that nurses had easier access to the hospitalist than internists or orthopedic surgeons; however, staff mentioned that the wait times for consults could be lengthy since there was only one hospitalist.

Nurses and pharmacists commented that the new initiatives implemented by the hospitalist had increased their workload. This increased work was attributed to more testing and orders being written. The staff commented that while this may have improved patient care, it added work to their own roles. This may highlight that the boundaries between the hospitalist and both nurses and pharmacists are less distinct than among the physicians.

It has been argued that poor conceptualizations of interprofessional activities persist. There has been confusion distinguishing between interprofessional collaboration and interprofessional education. In this study, we classified the interactions between the hospitalist and staff as interprofessional collaboration because participants perceived that their work and communication with the hospitalist affected patient care. This aligns with the definition of collaborative
Collaborative practice occurs when health care providers work with people from within their own profession, with people outside of their profession and with patients/clients and their families. They supported the hospitalist by assisting him and carrying in their decision-making and medical education. At times, pharmacists generally were supported by the hospitalist role with the internal medicine or surgical physicians. Nurses and a hospitalist at a facility. In our study, the hospitalist role defining professional role boundaries prior to implementing necessary to support the hospitalist role.

The strength of this study is that it explored the impact of the hospitalist role on other staff in an orthopedic environment. One potential limitation is that each of the study participants personally knew the hospitalist at this facility. Many participants commented favorably on his personality. This relationship among the participants and the hospitalist may have impacted their ability to assess the hospitalist role without feeling they were being critical of the individual holding this position. To reduce this impact we were careful not to identify participants in the study, and we did not permit the hospitalist to know who participated in the study, nor did we allow him to view complete transcripts. Furthermore, the hospitalist interacted with primary care physicians in the community by providing letters to update them on any complications their patient experienced during surgery. However, we did not interview any primary care physicians in the community, so we cannot comment on their experience working with the hospitalist. Despite these limitations, the data provided insight into the interprofessional collaboration necessary to support the hospitalist role.

In summary, this study underscores the importance of defining professional role boundaries prior to implementing a hospitalist at a facility. In our study, the hospitalist role worked well because its scope of practice did not interfere with the internal medicine or surgical physicians. Nurses and pharmacists generally were supported by the hospitalist role in their decision-making and medical education. At times, they supported the hospitalist by assisting him and carrying out tests and medical directives as ordered. Some staff members commented that his role had increased their workload as a result of increased testing and medical orders. It may be important for the hospitalist to include explanations for increased orders and testing as part of the medical education he provides. Furthermore, this study demonstrates the importance of educating staff about the hospitalist role boundaries prior to implementing this role. The findings of this study may not be applicable to another setting where there might be a different model of patient care.

Disclosure

The authors report no conflicts of interest in this work.

References

Appendix

Appendix 1 Semi-structured interview guide

Background information
Thank person for participating, go over consent form and have them verbally agree to participate, explain process, how confidentiality and anonymity will be protected, etc.

Warm-up and establishing rapport
• It would be nice if you could let me know a little bit about yourself. How long have you been working at the [Centre name]?
• Can you tell me a little bit about your role here?

Experiences prior to working with hospitalist
• How long were you working here when the hospitalist role was introduced?
• What was your original reaction to this role?
• Please describe the key problems you encountered in your work at that time.
• What were your expectations (if any) of how the hospitalist role would affect your work? Did you have any concerns? If so what were they?

Experiences working with hospitalist – staff impact
• Can you describe a time when you worked directly with the hospitalist? (Probes: what stood out for you? How would you characterize this experience?)
• Can you describe the top three things that have changed in the work that you perform on a daily basis since the hospitalist role was introduced?
• What is the most important benefit to you of working with a hospitalist?
• What is the least important benefit to you?

Experiences working with hospitalist – patient impact
• In what way do you believe the hospitalist has impacted on patient care? (Probes: why do you think that? Do others share this opinion?)
• Can you provide an example of the impact of the hospitalist on patient care?
• What is the most important benefit to patients of having a hospitalist?
• What is the least important benefit?

Recommendations
• Would you recommend working with a hospitalist to your peers? Why or why not?
• How could we improve this program?

Cool-down/wrap-up questions
• Is there anything else I haven’t asked you about that you’d like to add?
• The responses you have provided may stimulate some additional questions or need for further clarification. If so, may we contact you in the future?
• Explain rest of process (eg, that they will be invited to a meeting to provide feedback on preliminary interpretation of data)