Factors and Behaviors Related to the Promotion of Pediatric Hospital Medicine Fellow Autonomy: A Qualitative Study of Faculty

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Received for publication November 20, 2018; accepted May 4, 2019.

Abstract

Objective: To identify factors that influence faculty to promote or reduce the expression of autonomy for pediatric hospital medicine (PHM) fellows and describe behaviors faculty employ to support fellow autonomy in the clinical setting.

Methods: This was a multicenter, qualitative study using semistructured interviews with core faculty in PHM fellowships. Data were transcribed verbatim and analyzed using a phenomenological approach. Each transcript was coded independently by 2 trained reviewers who then met to reconcile differences. Codes were identified using an iterative approach and organized into themes. Investigators engaged in peer debriefing during data collection, and member checking confirmed the results.

Results: Interviews were conducted December 2016 to January 2017 with 20 faculty from 5 PHM fellowships. Most participants were female (12, 60%) and assistant (13, 65%) or associate (6, 30%) professors. Data analysis yielded 6 themes. Themes reflect the importance of faculty experience, style, and approach to balancing patient care with education in the provision of autonomy for PHM fellows. Faculty appreciation for the role of autonomy in medical education, investment in their roles as educators, and investment in PHM fellowship training are also influential factors. Finally, fellow clinical, educational, leadership, and communication skills influence the provision of autonomy. Faculty employ various levels of supervision, scaffolding techniques, and direct observation with feedback to support fellow autonomy. Professional development was considered essential for developing these skills.

Conclusions: We identified 6 themes related to faculty provision of autonomy to PHM fellows, as well as strategies employed by faculty to support fellow autonomy.

Keywords: autonomy; clinical fellow; pediatric hospital medicine

Academic Pediatrics 2019;19:703−711

What's New

There is little information about the provision of autonomy to clinical fellows. We describe factors that influence faculty to adjust the expression of autonomy for pediatric hospital medicine fellows and describe strategies faculty employ to support fellow autonomy in clinical settings.

Competency-based medical education involves supporting and assessing learner progression along a continuum of defined performance levels for each competency in preparation for unsupervised work. An ideal training environment optimizes graduated responsibility and progressive independence, with supervisors using a variety of techniques to balance learner autonomy and supervision and support trainee progression along the continuum.[1-4] This ideal reflects the self-determination theory definition of autonomy—acting of one's own volition.[5] In medical education, autonomous learners perceive they have a choice about how to manage patient care, education of self and others, and team leadership.

Two studies describe supervisory models in internal medicine and critical care medicine that include approaches to balancing autonomy and supervision.[6,7] In addition, several studies describe specific factors related to the provision of autonomy to residents by supervisors.[3,8-11] Common factors include characteristics of the trainee, such as degree of motivation, competence, conscientiousness, and self-awareness, and characteristics of the supervisor, such as degree of experience and philosophical approach to supervision. Other important factors

include the quality of the trainee−supervisor relationship, the task, and the clinical context.

Several authors describe general strategies medical educators can use to foster autonomy among trainees,[5,12-16] and multiple studies have examined strategies demonstrated by supervisors for promoting resident autonomy in the clinical learning environment.[6,7,9,17-19] To our knowledge, only 2 published studies on promoting autonomy incorporate clinical fellows,[1,7] and there are no studies specifically examining strategies to promote autonomy of clinical fellows in pediatrics.

This topic is relevant and timely for the field of pediatric hospital medicine (PHM). In 2016, the American Board of Medical Specialties designated PHM as a pediatric subspecialty, and PHM fellowship programs will soon be eligible for accreditation from the Accreditation Council on Graduate Medical Education. Since 2008, the PHM fellowship directors have met regularly to reduce training program variability and define training standards.[20] The group has developed a standardized curricular framework, rotation goals and objectives, and entrustable professional activities.[21,22] However, the relationships between faculty and PHM fellows with regard to the balance of supervision and autonomy in the clinical environment has yet to be described.

Medical students and residents consistently describe hospitalist educators as being skilled at promoting trainee autonomy.[23-25] One study describes strategies identified by residents and attending physicians, including 6 PHM faculty, to promote resident autonomy during family-centered rounds.[18] However, PHM fellows are unique from other learners and pediatric subspecialty fellows because they begin fellowship with more clinical experience in their field of focus and may work alongside junior attendings with a similar level of experience. There are no studies examining the triggers for promotion or reduction of the expression of autonomy for PHM fellows or the strategies employed by PHM faculty to promote fellow autonomy. The purpose of this study is to identify the factors faculty associate with promoting or limiting the expression of autonomy of PHM fellows, and to describe the strategies faculty use to promote PHM fellow autonomy.

METHODS

We conducted a multicenter, qualitative research study using semistructured interviews and a phenomenological approach to collect and analyze data.[26] The institutional review boards at all sites formally reviewed and approved the study. Participants were core faculty from 5 PHM fellowship programs that varied in maturity, size, duration, and geographic location. We used a criterion sampling strategy focused on core faculty who supervise PHM fellows in the inpatient environment at each institution, as identified by PHM fellowship program directors. We initially selected and invited a sample of core faculty from each participating program, with additional selections and invitations to reflect the distribution of gender and academic rank among all eligible participants. We invited participants via email to participate in the study.

We developed a working interview guide (Appendix 1) based on personal experience and information from the literature related to balancing trainee supervision and autonomy. The interview questions focused on faculty's perception of variability in promoting autonomy, faculty motivational factors, triggers for the provision or reduction of the expression of autonomy, and behaviors or techniques used by faculty to promote autonomy. Three investigators received training on conducting semistructured interviews, including the use of probing techniques, to gather detailed information. Interviewers reviewed the interview guide together to ensure a shared understanding of the meaning and objective of each question. Each practiced conducting a semistructured interview with pediatric faculty who were nonparticipants. The interviewers then conducted semistructured interviews via phone with participants with whom they had no personal relationship. Interviewers obtained verbal consent from all participants, and collected demographic data on participant age, sex, years as a pediatric hospitalist, and academic rank. All interviews were audiotaped and transcribed verbatim and identifying information was removed.

We used Dedoose Version 7.0.23 (SocioCultural Research Consultants, LLC, Los Angeles, Calif) to facilitate organization and coding of data. Four investigators independently coded the first 3 transcripts and then discussed to determine an initial set of codes for data analysis. Using this provisional code book, each of the 4 investigators then coded a subset of the remaining transcripts such that each transcript was coded independently by 2 investigators. Differences were reconciled, and revisions to the code book were made as needed. The entire study group met several times to review the data and organize the codes into themes. Sampling, data collection, and data analysis continued until we achieved thematic saturation. Investigators engaged in peer debriefing during data collection and analysis, a process by which investigators discuss emerging insights and tentative themes in order to ensure adequate sampling and confirm that the themes have reached saturation.[26] To ensure dependability, we engaged in member checking by sharing the results with study participants, who confirmed our findings.[26]

RESULTS

There were 63 eligible participants from 5 PHM fellowship programs (Table 1). Of these, a total of 39 faculty members were invited to participate—1 declined and 19 did not respond. The final sample consisted of 20 core faculty members with a similar distribution of sex and academic rank to the total study population (Table 2). The median age was 41.5 years (interquartile range: 38.5−44 years; range 34−72 years), and the median years in practice was 9.25 years (interquartile range 7−12; range 4−24).

Table 1. Characteristics of Pediatric Hospital Medicine (PHM) Fellowship Programs included in PHM Fellow Autonomy Study, 2016–2017

Institution	Year Established	Class Size, fellows/year	Duration, y	US Region	No. Core Faculty	No. Study Participants
A	2003	2	3	South Atlantic	14	5
B	2010	2	2	Pacific	19	6
C	2013	2	2	Pacific	16	4
D	2010	1	2	West South Central	9	4
E	2015	1	2	West South Central	5	1

Table 2. Characteristics of Pediatric Hospital Medicine (PHM) Fellowship Program Core Faculty Included in PHM Fellow Autonomy Study, 2016–2017

Characteristic	Core Faculty at Participating Institutions, N (%)	Sample, N (%)
Sex		
Female	37 (59%)	12 (60%)
Male	26 (41%)	8 (40%)
Academic rank		
Instructor	1 (2%)	0 (n/a)
Assistant professor	48 (76%)	13 (65%)
Associate professor	11 (17%)	6 (30%)
Full professor	3 (5%)	1 (5%)

n/a indicates not applicable.

Factors Affecting the Provision of Autonomy

We identified 6 major themes described by faculty as affecting their provision of autonomy to PHM fellows (Table 3).

Faculty Experience and Style Influence Autonomy Granted to PHM Fellows

Nearly all faculty discussed the relationship between tenure as an attending and comfort with clinical practice and how this impacts the degree of autonomy granted. Faculty indicated that there is a positive correlation between years in practice with increased clinical confidence and comfort with promoting fellow autonomy. Faculty also identified the attending's practice style as a factor that affects the provision of autonomy to fellows, specifically noting that more detail-oriented faculty may have more difficulty promoting PHM fellow autonomy.

Faculty Balance Quality, Safety, and Family Expectations When Tailoring Autonomy Granted to PHM Fellows

Faculty described the need to ensure patient safety as a powerful motivational factor related to the provision of fellow autonomy. Specifically, they noted patient safety concerns as a reason they would limit a fellow's expression of autonomy. Faculty described both low-stakes consequences such as "undue expense" and high-stakes consequences such as "patient harm" that would influence them to adjust the fellow's expression of autonomy. Phrases such as evidence-based medicine, quality of care, and high value care were consistently mentioned as part of these descriptions.

Family and caregiver satisfaction, particularly as it relates to difficult conversations or conflict, was highlighted as another factor that motivated faculty to adjust the fellow's expression of autonomy. Typically, faculty described scenarios in which the family or caregiver was dissatisfied, and this prompted the faculty member to intercede and curb fellows' expression of autonomy and independence. However, faculty also expressed a need to temporarily intercede in situations when the degree of family or caregiver dissatisfaction negatively impacts the fellow.

Faculty's Personal Experience With and Understanding of the Role of Autonomy in Medical Education Influences Autonomy Granted to PHM Fellows

Previous personal experience with the balance of supervision and autonomy during residency or fellowship was described as an important motivational factor for faculty when working with trainees. Although individual faculty members gave examples of having either a less-optimal or more-optimal balance of supervision and autonomy as trainees, all faculty members who mentioned this concluded that the provision of autonomy is an important part of clinical teaching.

Faculty noted that understanding the impact of the optimal balance of supervision and autonomy for trainees was important, and the need for professional development on this topic was consistently endorsed. Faculty indicated that some may have "a lack of knowledge or understanding of the educational benefit of fostering autonomy," which then negatively impacts the balance of supervision and autonomy. Others shared a recognition of the importance of clearly defining roles and responsibilities of the fellow and attending with regard to the provision of autonomy. Specifically, faculty indicated that differing roles and responsibilities allow the fellow more autonomy and the chance to hone patient care and teaching skills, while also allowing the attending to capitalize on their individual expertise and focus on systems issues related to patient care.

Faculty Investment in Their Roles as Educators and in PHM Fellowship Training Influences Autonomy Granted to PHM Fellows

Many faculty members spoke passionately about their roles as educators, both in general, and as it relates to working with PHM fellows. The degree to which a faculty member identifies as an educator was described as a primary motivational factor in promoting fellow autonomy. Several faculty members described the relationship

Table 3. Themes Related to the Provision of Autonomy to Pediatric Hospital Medicine (PHM) Fellows by Core Faculty, 2016–2017

Themes	Representative Quotes
Faculty experience and style influence autonomy granted to PHM fellows.	[Faculty members] with less expertise, less experience, less comfortable in their own skills tend to do a little bit more micromanaging to alleviate their own anxiety.
	When I was a little bit earlier in my career, it was much harder to give autonomy just because I was also developing my own skills and I probably wasn't as comfortable with my clinical practice as I am now.
	I think some people have different styles of practice that are more detail-oriented. Others are more global. Some have a different focus—more or less family centered. I think that interaction in practice styles creates either a willingness to extend more autonomy or some resistance to that.
Faculty balance quality, safety, and family expectations when tailoring autonomy granted to PHM fellows.	I think that a lot of it has to do with perception of either undue expense or potential harm to the patient [that] would lead me to step in.
	Patient safety [is] probably the most obvious. [If] there's a big error or omission . . . or something that just needs to happen in the moment . . . That's a time to step in.
	If there's a disconnect between the family's words or body language and what the fellow is saying, then that's sort of like a circuit breaker for me. If I sense dissatisfaction, confusion, disagreement, a sense of noncompliance, then I will rescind that autonomy and insert myself.
	The dad started questioning the fellow, her knowledge, and if she knew what she was treating. My fellow started feeling very uncomfortable . . . so then I stepped in.
Faculty's personal experience with and understanding of the role of autonomy in medical education influences autonomy granted to PHM fellows.	As a resident, I was fortunate to be at a training program where we were able to have a lot of autonomy. I feel like I was able to develop my own clinical style. And so I see the benefit of it.
	I did my hospitalist fellowship. I think I learned because I was given autonomy. It's important if [fellows are] going to function independently in the future.
	When I first came out of training and spent my first year as an attending, I realized that it was very difficult and that I probably would've benefitted from more autonomy in my training years.
	I think that part of the problem is a lack of knowledge or understanding of the educational benefit of fostering autonomy.
Faculty investment in their roles as educators and in PHM Fellowship training influences autonomy granted to PHM fellows.	Some [faculty members] have no idea what the goal of fellowship is. So that's something that's important to continue helping everybody understand, how to work with fellows and improve how they provide autonomy to fellows.
	It's a little hard for me to envision PHM fellowship versus being a nephrologist, where you sort of learn these set of skills in nephrology that you didn't encounter as a resident . . . not that [PHM fellows] aren't learning new skills but a lot of skills are things that they've already done as a resident.
	If we don't put effort into allowing our trainees the appropriate amount of learning and autonomy, it's going to be very difficult for them to become the successful next generation in hospital medicine providers.
	[It's] really the mission of an educator working with a fellow. Frankly, I try to [promote autonomy] as much as I can with residents, especially senior residents. But even more so, with hospital medicine fellows.
	I think some faculty members are very much fixated on the clinical duties of a hospitalist. [Others] are very dedicated to being teachers of learners of all levels and will spend a lot of time working with the fellows.
PHM fellow clinical and educational skills shape the autonomy granted by supervising faculty.	If there's significant lack of knowledge around best practice, I think that would be a trigger [to decrease autonomy]. So overtly managing a patient not appropriately based on guidelines, I think that would be one that would cause concern.
	When I disagree with their management decisions not just small ones but the big picture. . . I'll probe them and just get their understanding of why they wanted to do that and sometimes if it's a style thing I'll let them go.
	If the fellow is probing the team saying "okay what happens if this?" or "what are other considerations?" then I know the fellow is thinking on their own and I'm more likely to give them more leeway with clinical management for the team.
	If they seem to be stepping up and taking charge of situations, if they come to me with their own ideas, if they show evidence that they've read about a patient, or that they've looked at guidelines, and they have a decision-making process that is evidence based, those are things that allow me to feel comfortable letting them lead the charge so to speak.
	[The fellow] being able to also interact with other learners and give them some autonomy as well. . . I look to see that they are also trying to do the same for their senior resident . . . and actually kind of set them up to have some autonomy, ownership over their patient.
	As the fellow takes the initiative to lead the discussion . . . and [is] able to also run the discussion among multiple different levels of learners . . . And also [if they don't take the initiative] . . . I might actually give them feedback on how they can be the leader in a way and actually gain more autonomy.

(*continued*)

Table 3 (*Continued*)

Themes	Representative Quotes
PHM fellow leadership, communication, and interpersonal skills shape the autonomy granted by supervising faculty.	Another area that I pay attention to is if the fellow acknowledges what they don't know, if they're comfortable coming to me when they're [unsure] . . . I think witnessing their understanding of their limitations also allows me to give them more autonomy. With respect to leadership [and management], there are just times where things fall apart . . . So if we're falling behind, I step in and say, this is great but we need to move on. If there's controversy among the residents or the residents start to challenge them, how they handle that, similarly with the nurses and support staff. If they [handle] that in a very mature way without getting offended . . . I give them more autonomy. [If] they haven't grown their interpersonal communication leadership skills [and] they're ruffling feathers of other divisions in ways that're causing more friction [as opposed to] improving systems and health, and they need a little bit more instruction on that. I've had to reclaim autonomy . . . when the fellow hasn't yet developed the techniques that they will [need] to lead an involved discussion with a family. Small communication struggles are normal. And I would want to hold myself back and not jump into the conversation just because there was a little bit of a difficulty

of an attending to a fellow as similar to "a colleague observer or a peer observer" or "a person that they can ask for advice on the management of a patient if they feel uncertain." Many made specific mention of the importance of the attending being invested in the fellow's career development in order to foster individual fellow autonomy and growth, and promote continued growth of the PHM field.

The faculty member's attitudes toward PHM fellowship training was described as an important element influencing the provision of autonomy to fellows. Faculty pointed out that some faculty lack understanding of or belief in the purpose of fellowship and individual fellows' goals, which may hamper fellow autonomy. Furthermore, a few faculty members described a perceived lack of discrimination between general pediatrics and PHM competencies, particularly in comparison to other pediatric subspecialties. This perception may lead some faculty to promote a more liberal expression of autonomy for PHM fellows, believing that fellows are ready for unsupervised practice despite their status as trainees.

PHM Fellow Clinical and Educational Skills Shape the Autonomy Granted by Supervising Faculty

Nearly all faculty members discussed the influence of the fellow's clinical decision-making skills on the degree of autonomy supported by the attending. Specifically, when fellows have a strong fund of knowledge, knowledge of best practices, and clinical competence, faculty are willing to allow a greater expression of autonomy. Of note, several faculty described scenarios in which fellows' strong clinical decision-making skills were demonstrated. Most often, these scenarios involved either the fellow using probing questions directed toward other trainees or the fellow responding in a satisfactory manner to probing questions from the attending, which caused faculty to be more confident in the fellow's skills and in allowing the fellow a greater expression of autonomy. In contrast, when the faculty do not see the fellow critically thinking about patients, the faculty may probe further to determine their comfort in allowing for greater fellow autonomy.

Faculty also described the fellow's level of skills as an educator as an influential factor in the provision of fellow autonomy. Comments on this topic focused on the fellow's ability to provide an appropriate balance of supervision and autonomy to residents and to teach multiple levels of learners. A greater skill level in each area was associated with faculty fostering a greater degree of autonomy for the fellow.

PHM Fellow Leadership, Communication, and Interpersonal Skills Shape the Autonomy Granted by Supervising Faculty

Faculty described the leadership skills of the fellows, particularly as they relate to proactivity and self-awareness, as being important and closely related to the demonstration of clinical-decision making skills. Faculty reported a positive correlation between the fellow's level of proactivity or self-awareness regarding clinical competency and the provision of autonomy. The fellow's ability to manage the inpatient clinical team was another common topic related to leadership mentioned by faculty members. Most often, faculty mentioned poor management skills as a reason to limit the fellow's expression of autonomy.

A less-dominant subtheme was the level of the fellow's communication and interpersonal skills, particularly those related to difficult conversations with patients and caregivers. In contrast to the examples referred to previously, where the emphasis was on patient or caregiver's verbal and nonverbal communication as evidence of dissatisfaction, faculty also spoke specifically about the fellow's communication skills when navigating challenging conversations with patients and caregivers. There was variability among the faculty in terms of how much they allowed the fellow to manage communication struggles. The level of fellow communication and interpersonal skills related to trainees, nurses, consultants, and other providers or team members was also described by faculty as an influential factor. Faculty described examples of appropriate and inappropriate communication, and how they impact the provision of autonomy.

ATTENDING BEHAVIORS AND TECHNIQUES TO PROMOTE FELLOW AUTONOMY

Faculty described several behaviors and techniques related to promoting autonomy for PHM fellows in the clinical environment (Table 4). The most dominant themes were closely related and reflected the use of various levels of supervision, scaffolding techniques, and other behaviors pertaining to supporting the fellow as the lead clinical provider and the lead educator. The use of direct observation with feedback was commonly mentioned in both clinical and educational areas.

The use of different levels of supervision may be related to the supervision policies of the fellowship program or the faculty member's personal practices. In addition, the nature of the clinical scenario was described as a factor that influences the degree of autonomy and level of supervision provided. Faculty utilized techniques that reflect the cornerstones of scaffolding, such as contingency and fading.[4] Contingency refers to differentiated support based on the current level of trainee performance, and fading refers to the gradual withdrawal of support. Other behaviors include using prompts, acting in a consultative role to the fellow, and assuming non-dominant behaviors during rounds.

With regard to educational activities and leadership, faculty describe having the fellow complete specific educational tasks such as reviewing trainee documentation, providing feedback to trainees, completing trainee evaluations, leading structured teaching sessions, and planning for teaching during family-centered rounds. Similar to clinical work, faculty described using different levels of supervision and scaffolding techniques based on the task.

DISCUSSION

Our findings showed that several faculty characteristics, faculty motivational factors, and fellow characteristics are associated with an attending's provision of autonomy to PHM fellows. Some faculty described barriers to supporting autonomy, such as a lack of understanding of the educational benefits of autonomy and a lack of understanding of the purpose of PHM fellowship training. Faculty reported use of a variety of strategies to promote PHM fellow autonomy, including defining roles and responsibilities, promoting the fellow as the lead clinical provider or lead educator, and using direct observation and feedback to hone the fellow's skills.

Our findings align with the literature with regard to trainee, supervisor, task, and systems factors affecting the provision of autonomy to residents and the common strategies used by supervisors to promote trainee autonomy. For example, trainee motivation and competence, supervisor experience and educational philosophy, and the use of both direct observation for trainee assessment and various levels of supervision have been described to influence the provision of autonomy.[3,9-11] However, our findings go further in exploring the attending-level attributes and activities that faculty focus on when supervising fellows, such as independent decision-making, leadership, and teaching skills. Given the paucity of literature on autonomy in fellowship education, these findings may be relevant to fellowship program directors and faculty in other subspecialty fields within graduate medical education.

In our study, some faculty described a lack of knowledge regarding the educational benefits of autonomy as a barrier to promoting fellow autonomy. This finding suggests that in the era of competency-based medical education, clinicians need formal training in education to function effectively as clinical educators.[27] Furthermore, some faculty in our study described a lack of understanding or belief in the goals and objectives of PHM fellowship training. Although many PHM faculty may be skilled at working with residents and medical students,[23,24] promoting the autonomy of PHM fellows involves a different set of attitudes and techniques, including those that relate to the non-patient care roles of PHM fellows and those that are more focused on attending-level attributes, such as team leadership and teaching. These attitudes may interfere with the provision of autonomy if faculty do not fully believe in the goal of fellowship training or the distinction between general pediatrics and PHM.

Faculty development may play an important role in ensuring all core faculty understand the purpose of fellowship training and the educational value of supporting autonomy. A prior study demonstrated that faculty development improves PHM faculty's provision of autonomy to senior residents.[28] Another study described the purpose of faculty development as "not only to provide a formal body of knowledge and skills, but also to foster the development of a distinct identity as an educator by instilling new attitudes and values."[27] Thus, providing faculty development to core faculty that includes the goals of fellowship training, the educational benefits of autonomy for the learner, and practical strategies to promote autonomy may impact both faculty's skill in supporting autonomy and faculty's investment as an educator, which was noted by faculty in our study to increase their motivation to promote fellows' autonomy. Faculty development thus has the potential to help faculty value their role as educators and improve their attitudes towards PHM fellowship training through improved knowledge of the clinical, educational and leadership training that fellowship provides.

The faculty in our study described several useful techniques and fellow roles that can be taught in faculty development on autonomy. Specifically, faculty described using various levels of supervision, scaffolding, prompts, non-dominant behaviors, and direct observation with feedback. Faculty also encouraged fellows to take on roles such as acting as lead clinical provider with the attending in a consultative role and acting as lead educator by reviewing trainee documentation, providing feedback to trainees, completing trainee evaluations, and leading teaching sessions.

In addition to teaching the techniques our participants described, faculty development could include teaching faculty to discern a fellow's strengths, weaknesses, and readiness for autonomy. Furthermore, faculty development could include the strategies described in the literature as autonomy-supportive education.[16] These strategies

Table 4. Behaviors and Techniques Employed by Core Faculty in Pediatric Hospital Medicine (PHM) Fellowship Programs Related to the Provision of PHM Fellow Autonomy, 2016–2017

Behaviors or Techniques	Key Concepts Described	Representative Quotations
Use various levels of supervision	• Direct and indirect supervision • Backstage oversight • Characteristics of clinical scenario	We are present with the fellows on rounds every single day during the first year, and then during the second year, they attend on the ward without [direct] attending supervision. I just do a lot of behind the scenes chart checking and checking with the nurses, so I can see the care plan that was made, and what was discussed with the family without directly interjecting on rounds. I also think that depending on what the work is—so, for example, we do some sedations and we supervise fellows, and in that scenario, I definitely don't give them as much autonomy as I do when I'm supervising them taking care of a patient on the ward.
Use scaffolding*	• Differentiated support based on current level of trainee performance (contingency) • Gradual withdrawal of support (fading)	[With] the new fellows, it's more of a graduated autonomy. I haven't yet had an experience with somebody as a fellow that walked in the door on day one feeling fully comfortable to take on the entire thing. At times I'll lead sessions so that the fellows can gain experience learning how I lead a typical conversation and then help them do the next one. If we're having an interaction with a consultant, I'll encourage the fellow to take a lead on the conversation whether it's by e-mail or in person so that they feel like they have ownership of the management of the patient.
Support fellow in role of lead provider	• Prompts • Consultative role of attending • Participation and positioning during family centered rounds	Simply prompting them that to say [that they're] now in a role where [they] have to direct the care, and just reminding them that often there isn't a right or wrong approach, it's carrying it out and following it up. I feel that my role supervising a fellow is not to make the clinical decisions for them or tell them how to make clinical decisions. . .but it's more to be a person that they can ask for advice on the management of a patient if they feel uncertain. I have the students and residents present to the fellow. I stand to the side. I never talk in the room when I'm with a fellow. I redirect the nurses and families and say that my fellow is attending and have them ask her the questions.
Support fellow in role of lead educator	• Participation during educational activities	I really look to the fellows to try to provide both formal education . . . And then the informal teaching plans on our family centered rounds. I might be an observer in the room while feedback is being given, but would not directly enter the conversation except in a very limited way. I would try to let what the fellow said stand and be the primary feedback. The fellows are also responsible for completing the evaluations of all the trainees with me.
Use direct observation with feedback	• Reflection • Unidirectional feedback • Bidirectional feedback	One of our fellows [was] having a difficult time relating to the senior residents, separating the roles and establishing her own attending style. So she asked me to observe interactions [with the senior resident] . . . That was one example where I think autonomy and stepping back and just watching, then giving feedback after the fact was probably the most beneficial. We will debrief after rounds to talk about how it went, how they felt the dynamic of the team was, the efficiency, the teaching, the decision making . . . We also talk about how it went for the fellow. So, it's real-time feedback and coaching. And, gauging how I'm doing as an attending, if I'm meeting their needs, if they need more space or less.

*van de Pol et al.[4]

include considering the learners' perspective, giving choices to learners, encouraging learners' acceptance of personal responsibility, asking about their goals, providing constructive feedback, encouraging questions, and granting full responsibility for tasks once the learners have demonstrated mastery.[16] This framework for autonomy-supportive education has been posited to speed up the learning curve by fostering learners' intrinsic motivation, and thus has implications for improving both the educational experience and patient care.[16] Thus, faculty development on autonomy has the potential to improve faculty's provision of autonomy to fellows, and therein better prepare trainees for independent decision-making and delivering high quality care to patients.

Our study has several limitations. Although our results would likely transfer to PHM fellowship faculty groups with similar characteristics to the faculty in our study, transferability of our results to PHM fellowship faculty groups with different characteristics, including those working in other geographic regions, may be limited. Furthermore, some faculty in our study reported having completed a PHM fellowship, but these data were not collected for all participants. As the field evolves and more pediatric hospitalists become fellowship-trained, this may alter faculty perceptions related to the balance of supervision and autonomy for PHM fellows. Transferability to fellowship faculty in other disciplines may also be limited, particularly in training programs with greater maturity and subspecialty fields with greater longevity than PHM. These various faculty groups may report different experiences, perspectives, and behaviors related to the provision of fellow autonomy. Finally, the balance of supervision and autonomy from the perspective of the PHM fellows or other stakeholders was not explored and would be an interesting area for further study.

Conclusions

Faculty characteristics, faculty motivational factors, and fellow characteristics may be associated with faculty's provision of autonomy to PHM fellows. In addition, faculty use several strategies to promote PHM fellow autonomy, including defining roles and responsibilities, promoting the fellow as the lead clinical provider and lead educator, and using direct observation and feedback to hone the fellow's skills. We believe that faculty would benefit from professional development to improve knowledge, skills, and attitudes in promoting trainee autonomy and in understanding the goals of PHM fellowship training. Future research should explore how faculty development on autonomy-supportive education impacts faculty attitudes and behaviors, fellow education, and patient care delivery.

Supplementary Data

Supplementary data related to this article can be found online at https://doi.org/10.1016/j.acap.2019.05.003.

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