

Formal Versus Informal Judgments: Faculty Experiences With Entrustment in Graduate Medical Education

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ABSTRACT

Background Entrustment of residents has been formalized in many competency-based graduate medical education programs, but its relationship with informal decisions to entrust residents with clinical tasks is unclear. In addition, the effects of formal entrustment on training practice are still unknown.

Objective Our objective was to learn from faculty members in training programs with extensive experience in formal entrustment how formal entrustment relates to informal entrustment decisions.

Methods A questionnaire was e-mailed to all Dutch obstetrics and gynecology program directors to gather information on how faculty entrusts residents with clinical independence. We also interviewed faculty members to explore the relationship between formal entrustment and informal entrustment. Interviews were analyzed with conventional content analysis.

Results Of 92 programs, 54 program directors completed the questionnaire (59% response rate). Results showed that formal entrustment was seen as valuable for generating formative feedback and giving insight into residents' progress in technical competencies. Interviewed faculty members ($n = 12$) used both formal and informal entrustment to determine the level of resident independence. Faculty reported they tended to favor informal entrustment because it can be reconsidered. In contrast, formal entrustment was reported to feel like a fixed state.

Conclusions In a graduate medical education program where formal entrustment has been used for more than a decade, faculty used a combination of formal and informal entrustment. Informal entrustment is key in deciding if a resident can work independently. Faculty members reported being unsure how to optimally use formal entrustment in practice next to their informal decisions.

Introduction

Making entrustment decisions about residents' levels of independence is routine in graduate medical education.¹⁻³ Residents are progressively granted levels of trust and responsibility during their training with the help of various methods, such as milestones and entrustable professional activities (EPAs)⁴ or the markers of progressive independence in CanMEDS 2015.⁵ Within these frameworks, competency milestones are intended to give insight into residents' progress during training. We offer insights into the effect and value of formalizing entrustment, building on more than 10 years of experience with a formalized entrustment program in Dutch obstetrics and gynecology (ob-gyn) graduate medical education programs.

Faculty physicians have to decide every day what a resident should and should not be allowed to do and

with what type and degree of supervision.⁶ In theory, supervisors will make these entrustment decisions based on whether the designated task is part of an activity in which the resident has already been entrusted.⁷ In practice, granting trust for an unsupervised activity is based on various factors, such as a resident's personal characteristics or a supervisor's teaching style and context.^{8,9} However, these factors are often not explicit in assessments and are mainly used during ad hoc, informal entrustment decisions.^{10,11} Despite the theoretical advantages of formalizing entrustment, its added value for practice has not been extensively studied.

To date, there has been little information on the relationship between formal and informal entrustment decisions.¹² While formal education tools such as EPAs are increasingly introduced in practice, it is essential to know how these judgments relate to formal education tools¹³ and to faculty's informal entrustment decisions. There seems to be a lack of clarity for both residents and their supervisors regarding when residents are capable to act on their own.¹⁴

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Editor's Note: The online version of this article contains the study questions.

A rising number of residency programs increasingly formalize their entrustment processes, without knowing the exact consequences of being entrusted. This can create uncertainty for residents about what they are allowed to do on their own, which may have implications for patient safety.¹⁵ It is essential to understand the relationship between formal, explicit entrustment and informal entrustment in clinical practice. To address this gap, what is the relationship between formal and informal entrustment from a faculty member's perspective?

Methods

This study was conducted between July 2014 and January 2016 in the Netherlands, with faculty from 1 ob-gyn residency education program. This 6-year specialty training program takes place in both university and general teaching hospitals. All ob-gyn teaching faculty physicians within these hospitals (located in urban and suburban settings) were eligible to participate. The program is known for its extensive experience with formal entrustment.¹⁶

In 2005, a competency-based curriculum was implemented in all Dutch hospitals that employed ob-gyn residents.¹⁷ Activities such as running an inpatient unit were explicitly described in a curriculum for the first time and became national guidelines. Since then, each resident is formally entrusted in 74 activities (such as “performing a caesarean section” or “bad news delivery”) that collectively comprise the core professional activities of obstetrician-gynecologists. Each activity consists of descriptions based on CanMEDS competencies. For instance, “working within a team in an operation room” is part of “performing a caesarean section” activity and based on the Collaborator competency. There is no attention for informal entrustment judgments within the curriculum plan.

Our method consisted of 2 steps. First, we sent out an electronic questionnaire to program directors who have experience with formal entrustment in order to understand how they value formal entrustment decisions in postgraduate medical training. This provided information on how formal entrustment is incorporated in the training program. Second, we conducted semistructured interviews with selected faculty members about the relationship between formal and informal entrustment. These interviews allowed us to compare different viewpoints on entrustment and to analyze how various supervisors use formal and informal entrustment.

All Dutch ob-gyn program directors (n = 91) were invited to complete an online questionnaire. Nonresponders were reminded twice by e-mail. Participants

What was known and gap

There has been growing focus on formal entrustment models, but it is not clear how faculty use formal and informal approaches to entrust residents with clinical tasks.

What is new

A study of faculty with a decade of formal entrustment use in practice discusses how they use formal and informal entrustment in their supervision of obstetrics and gynecology residents.

Limitations

Single specialty study reduces generalizability; survey instrument without validity evidence.

Bottom line

Faculty supervisors need to discuss how they want to use formal and informal entrustment and how the 2 forms of entrustment complement each other in practice.

were not compensated for participation. All participants were informed about the purpose of the questionnaire, which was to evaluate implementation of a renewed curriculum plan.

For the interviews, 15 faculty members were selected using purposive sampling. Only faculty members supervising residents were invited to be interviewed. Faculty members selected actively made decisions on residents' independence levels, and therefore had insight into the relationship between formal and informal entrustment in practice. Our purposive sample considered sex, working experience, university or general hospital, being a program director or a faculty member, and years of experience in supervising residents to result in an interview group with a variety of perspectives on the research topic.

Of the 15 initially invited, 12 agreed to being interviewed. The researchers analyzed the interviews for themes. After analyzing 10 interviews, saturation was reached and no new categories were found. Interviewees' characteristics are reported in TABLE 1.

The questionnaire included 4 questions about how formal entrustment of residents is perceived and practiced. The questions (provided as online supplemental material) were formulated with the help of relevant literature and medical education experts, without validity testing.

Interviews were conducted by a researcher (K.A.vL.) with extensive interviewing experience, and without involvement in the daily work of the interviewees. An interview guide was developed based on earlier research and the questionnaire results. After 1 pilot interview the interview guide was revised. Interviews were semistructured, and the interviews lasted 45 minutes to 1 hour. Additional clarifying questions were asked. The interviewer audio-recorded all interviews and transcribed them verbally. Identifying information was removed.

TABLE 1
Characteristics of Interviewees^a

Characteristics	Yes	No	Total
Male	8	4	12
Academic hospital	4	8	12
Program director	6	6	12
Experience as a medical specialist < 10 years			6
Experience as a medical specialist 10–20 years			2
Experience as a medical specialist > 20 years			4

^a N = 12.

Ethical approval for this study was granted by the Dutch NVMO Ethical Review Board.

Questions 1, 2, and 4 of the questionnaire were analyzed using descriptive statistics (SPSS version 21, IBM Corp, Armonk, NY). We aggregated themes of the open-text responses to question 3. Interview transcripts were analyzed with MAXQDA software (VERBI GmbH, Berlin, Germany). Categories were extracted from the data in keeping with standard approaches to content analysis.¹⁸ This inductive approach was chosen to allow categories to emerge from the data without a prior conceptual model. We compared our label scheme with labels identified in earlier studies.^{9,14} This led to a new structure, in which initial labels were combined into categories. Discussion with all authors (2 educational scientists and 2 faculty members) resulted in a final set of categories based on coded quotes.

Results

Questionnaire Results

The response rate for the questionnaire was 59% (54 of 92). No differences in background (sex, job experience, and employment in a university or general hospital) were found between responders and nonresponders. The vast majority (98%, 53 of 54) of participants were positive or very positive about working with progressive entrustment (mean = 4.70, SD = 0.50). The question “Is a resident who is entrusted for all EPAs that are formulated in the curriculum a competent gynecologist?” was answered positively by 41% (22 of 54), while 59% (32 of 54) disagreed with this statement. Those who disagreed were asked to answer question 3 in an open-text field: “Which information do you miss in entrustment decisions to make a resident a competent specialist?” Answers included missing attention for nontechnical competencies, such as communication and collaboration, in entrustment decisions of an EPA.

The final question sought to identify influencing factors during an entrustment decision: “Which 3 factors do you consider the most important in entrusting a resident to perform an activity

independently?” Participants were asked to select 3 out of 7 factors. Most participants attached the greatest importance to the experience of colleagues with that resident (81%, 44 of 54), to the number of workplace-based assessments (59%, 32 of 54), and to their own experience with residents (56%, 30 of 54). The factor selected least (19%, 10 of 54) was “Resident’s performance on nontechnical competencies” (see TABLE 2).

Interview Results

Analysis of the interviews resulted in 2 main categories—trust and competence—which dominated the discussion on the relationship between formal and informal entrustment. Next, interviewees emphasized the effects of formal entrustment on how residents are trained. In the next paragraphs, we discuss all viewpoints of the interviewees on each of these 3 categories.

Trust: The level of entrustment for each activity is recorded in a resident’s portfolio in formal entrustment systems. Some interviewees reported that ideally decisions to declare someone competent are conducted in consensus with all faculty members. Recording entrustment in portfolios creates transparency regarding levels of trust given to residents. Once faculty grants entrustment, residents are trusted to work on their own and there is no reason to doubt the decision to grant entrustment.

“Everyone is trying to guide the residents as well as possible and after some time they are ready to be entrusted. We discuss the entrustment level with all faculty members and from then on it is a fact. We do not reconsider that decision in every night shift.” (Interview 6)

Trust is not necessarily a fixed state. Residents can be trusted for a certain activity, but this does not imply that they will not be supervised in other clinical tasks. Depending on context, faculty members supervise residents, irrespective of their recorded entrustment.

TABLE 2

Which 3 Factors Do You Consider Most Important in Entrusting a Resident to Perform an Activity Independently?

Factors	No. of Times Selected
Experience of colleagues with the resident	44
Number of work-based assessments documented in portfolio	32
Own experience with the resident	30
Experience of resident with the activity	21
Earlier entrustment decisions for this resident	14
Motivation of the resident	11
Resident's performance on nontechnical competencies	10

"It often happens that someone is entrusted to work independently without looking at the records. We need the possibility to give someone independence at 1 time and call it back again at the next moment." (Interview 7)

Most interviewees recognized the value of formal entrustment decisions, yet they indicated difficulties experienced in practice when deciding to trust residents, mainly because the formally awarded entrustment does not always comply with a faculty member's perception of a resident's competence. "... According to the papers they are entrusted but everyone still thinks, 'I do not trust this resident to be completely responsible for my patient.'" (Interview 2)

Some interviewees stated that formal entrustment decisions do not always match their gut feelings. Therefore, they feel more secure entrusting residents informally on the spot, since this decision is based on contextual factors and can be easily undone. Interviewees reported that formal decisions feel more definitive, and leave comparatively less room for context-specific entrustment.

Competence: During both formal and informal entrustment, attention is paid mainly to technical competencies, whereas nontechnical competencies are considered less. Although faculty see the importance of nontechnical competencies, interviewees noted that attention to these is still limited in entrustment decisions. This can lead to residents with sufficient technical competencies, yet they are not ready for independent practice. Since entrustment decisions mainly focus on technical competencies, shortcomings in other aspects of the profession are not noticed.

The introduction of formal entrustment does not seem to have led to more attention to these competencies, although faculty members acknowledged their value. They reported taking nontechnical competencies into account at the end of training in an informal way.

Although formal entrustment and assessments ask for attention to all competencies, faculty members are not used to taking these elements into account. Interviewees stated faculty have an important role in increasing attention for other competencies, besides the technical ones. "I think we as faculty supervisors are to blame as well. We're not used to training people in these aspects." (Interview 11)

All interviewees proclaimed that it is difficult to declare residents to be good medical specialists based on formal entrustment decisions only. This is based on their perception that being entrusted in all formal activities does not guarantee that a physician will excel in practice. While residents are entrusted on all activities described in a curriculum designed for practice, excellent physicians need to be able to transcend these activities and combine into a whole, because only then is true competence reached. This is difficult, if not impossible, to capture in a formal entrustment decision. One respondent compared this with watching ballet dancers:

"Even an inexperienced audience can watch professional ballet dancers and tell you who is better than the others. All dancers are capable of perfectly performing each element separately, but somehow the best dancer can combine the elements better. What's missing in the other dancers is hard to grasp, but you can tell who dances best." (Interview 9)

Effects of Formal Entrustment: According to interviewees, the system of formal entrustment has affected curricula in several ways. For instance, formalization of entrustment provided a shared language, which was not available before. "Before, we only said 'he or she is not performing well.' So it does help us in formulating which items need attention . . . It creates a shared language." (Interview 4)

Working with formal entrustment can be seen as an opportunity to constantly examine the final requirements: Are all activities still important? Should we reconsider whether all residents need to learn this activity? Consistently working with entrustment

activities could stimulate the process of rethinking them.

Some faculty members see formal entrustment decisions as a formative instrument. “If a resident is entrusted for the oncology part, it does not mean that he is ready and you can check it off. It’s only a sign that he is well on his way and you can talk about what needs further improvement.” (Interview 2)

As an educational tool the value of formal entrustment seems evident to all interviewees. It creates a shared language, is a tool for feedback, and stimulates reflection on curricula.

Discussion

Within a postgraduate training program that has used formal entrustment for more than a decade, faculty used formal entrustment mainly as an instrument for giving feedback on residents’ progress. When it comes to trusting residents to work independently during daily patient care, informal entrustment was more common.

These 2 types of entrustment do not replace each other—both formal and informal entrustment have roles in postgraduate medical education.¹⁹ This echoes earlier findings that formal entrustment is used to provide feedback,²⁰ while informal entrustment facilitates faculty decisions on independence levels that take contextual factors into account.²¹

Previous research found different factors were important during entrustment decisions.^{8,9} While most, such as sufficient knowledge or technical skills, emerged in our study, interviewees noted that gut feelings on residents’ competence often leads to a decision to trust a resident to work independently. Due to differences in formal and informal entrustment, conflicting situations may arise in practice: a resident may not be entrusted according to formal documentation, but the same resident is already trusted to work independently. This can create uncertainty for residents about what they are allowed to do on their own, which can be harmful for their confidence and dangerous for patient safety.²² Using EPAs is an important step in creating a shared understanding on entrusted activities, and how entrustment is used in practice by residents and faculty.

Faculty members work with informal entrustment on a consistent basis and are familiar with this concept.¹¹ Concurrently, the role of formal entrustment has been increasing due to the growing focus on competency-based medical education, which asked for assessment of competencies, and has led to a significant increase in formal feedback. Yet, these assessments had little influence on residents’ work in

clinical practice.²³ A similar gap between the formal assessment system and practice can occur with entrustment. Formal entrustment, without clear instructions on how to use it, may create differences in how faculty members work with entrustment decisions, and can lead to situations in which residents have different independence levels depending on their supervisors. Therefore, supervisors need to discuss and work on a shared professional judgment,²⁴ otherwise it limits generalizability of entrustment decisions to other contexts. Attention focused on the implementation of formal entrustment instruments like EPAs, including faculty development to ensure a common mental model and communication among faculty members, is key in making formal entrustment work.

This study has limitations. First, it was executed in 1 specialty, and findings might not be applicable for other specialties. Despite careful selection, the 12 interviewees might not represent the opinions of all faculty. Finally, the questionnaire used in this study was not tested for evidence of validity, and respondents may not have interpreted questions as intended.

Future studies should focus on residents’ perspectives and investigate how other training programs are implementing formal entrustment into their curriculum blueprints and whether this is done differently, which would offer new insights into how to optimize formal entrustment.

Conclusion

In this national study of Dutch ob-gyn residency program faculty who have a decade of experience with formal entrustment decisions, informal entrustment still was key in deciding when residents can work independently. Formal entrustment decisions were mainly used for formative information on the progress of residents. Another key finding is the need for faculty supervisors to discuss how they want to use a hybrid system of formal and informal entrustment and how the 2 forms of entrustment can complement each other in practice.

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