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Developing and testing a comprehensive tool to assess family meetings: Empirical distinctions between high- and low-quality meetings

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ABSTRACT

Background: The heterogeneity with regard to findings on family meetings (or conferences) suggests a need to better understand factors that influence family meetings. While earlier studies have explored frequency or timing of family meetings, little is known about how factors (such as what is said during meetings, how it is said, and by whom) influence family meeting quality. Objectives: (1) To develop an evaluation tool to assess family meetings (Phase 1); (2) to identify factors that influence meeting quality by evaluating 34 family meetings (Phase 2).
Materials and methods: For Phase 1, methods included developing a framework, cognitive testing, and finalizing the evaluation tool. The tool consisted of Facilitator Characteristics (i.e., gender, experience, and specialty of the person leading the meeting), and 22 items across 6 Meeting Elements (i.e., Introductions, Information Exchanges, Decisions, Closings, Communication Styles, and Emotional Support) and sub-elements.
For Phase 2, methods included training evaluators, assessing family meetings, and analyzing data. We used Spearman's rank-order correlations to calculate meeting quality. Qualitative techniques were used to analyze free-text.
Results: No Facilitator Characteristic had a significant correlation with meeting quality. Sub-elements related to communication style and emotional support most strongly correlated with high-quality family meetings, as well as whether "next steps" were outlined (89.66%) and whether "family understanding" was elicited (86.21%). We also found a significant and strong positive association between overall proportion scores and evaluators' ratings ($r_s = 0.731$, $p < 0.001$).
Conclusions: We filled a gap by developing an evaluation tool to assess family meetings, and we identified *how* what is said during meetings impacts quality.

1. Introduction

Clinician-family communication is integral to patient care in intensive care units (ICUs) [1-6]. In ICUs, patients often lack decision-making capacity, and family members serve as proxies for clinician-patient communication. Family members report receiving inadequate or inconsistent communication, which they call "ineffective" or "poor"

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communication [7,8]. Given the impact that ineffective communication has on outcomes –adversely affecting families' satisfaction scores, undermining timely decision making, and negatively affecting family members' psychological sequelae—there is a body of research on how to optimize clinician-family communication [1,9-11].

Family meetings (discussions involving several clinicians and family members) are considered a primary vehicle for optimizing clinician-family communication. Much of the empirical research on family meetings suggests they improve clinician-family communication which, in turn, may improve outcomes. For instance, studies show that having a family meeting within the first 72 h of admission decreases length of stay without impacting mortality [1,12]. Having an ethics or palliative care consultant in family meetings can shorten ICU stays [13]. Family meetings also improve families' psychological sequelae and family satisfaction [14].

However, despite positive data on family meetings, some empirical data suggest that family meetings can fall short of their desired goals of improving satisfaction and psychological outcomes. In a study conducted by Cox and colleagues, palliative care-led meetings did not reduce family members' anxiety and depression compared to non-palliative-care-led meetings [15]. Other studies suggest that clinicians often fail to address family members' questions during family meetings, and they often do not attend to families' emotions [16,17]. Clinicians often do not clarify ethical constructs, such as 'substituted judgment' and 'comfort care,' during family meetings [16,18].

The heterogeneity with regard to these findings suggests a need to better understand factors that influence family meetings. While earlier studies have explored frequency or timing of family meetings, little is known about how factors (such as what is said during meetings, how it is said, and by whom) influence family meeting quality.

Indeed, there is little consensus on what constitutes the optimal method of conducting family meetings [4]. This gap has patient care implications: if there is no common framework to guide clinicians' communication during meetings—if there are no markers to differentiate skills—then clinicians have no way to fully assess whether they communicated effectively. It should be of little surprise, then, that clinicians miss opportunities to clarify and elaborate during family meetings, because they likely do not recognize where there are missed opportunities and how addressing those opportunities could be important [16].

In the absence of an understanding on what constitutes a high-quality meeting, it will be difficult to teach trainees (such as medical students and residents) necessary communication skills for family meetings. As a result, it may be challenging to meet the Accreditation Council for Graduate Medical Education's newly-established "milestone" on interpersonal communication.

There are a few studies assessing trainees' competencies facilitating family meetings, but they typically use artificial environments: trained actors and standardized family members [19-23]. Another limitation is that existing evaluation tools usually consist of only a few meeting elements, and they typically have binary scales [19]. The evaluation tools usually lack gradations or Likert scales in which to assess how well the trainee completes a family meeting element, and they do not include evaluative criteria to distinguish between choices [24], which creates evaluator indeterminacy.

In short, despite the integral role family meetings play in patient care, there is no comprehensive tool to assess family meeting quality and no way to fully differentiate skills used during meetings. To fill these gaps, our study objectives were: (1) To develop an evaluation tool to assess family meetings; (2) to identify factors that influence meeting quality.

2. Methods

This study was approved by the Houston Methodist Hospital and Baylor College of Medicine institutional review boards. The researchers are part of a multidisciplinary, multi-institutional workgroup consisting of: evaluation methodologists, biostatisticians, clinical ethicists, palliative care specialists, intensivists, social workers, nurse practitioners, and medical students. This study was conducted in 2 phases consistent with our study objectives—Phase 1 (tool development) and Phase 2 (evaluate family meetings).

2.1. Phase 1: tool development

2.1.1. Conceptual model

We developed a conceptual model of an 'ideal' family meeting based on a literature review and consulting experts. Our model postulates that a family meeting generally consists of 6 elements and several sub-elements (Table 1).

2.1.2. Item generation and selection

To create the 5-point Likert items, 2 experts determined which items should be binary or Likert-scaled. Subsequently, we developed evaluative criteria to anchor the Likert choice. For instance, one item was, "the facilitator appropriately reviews the patient's condition" (strongly agree to strongly disagree). The evaluative criterion was, "*A facilitator reviews the condition well when he or she discusses what the team has seen recently and the overall clinical picture. This should be concise and simple, avoiding medical jargon. A facilitator reviews the condition poorly when the patient's condition is not reviewed, or too much time is spent on irrelevant facts…*" Items were then selected for cognitive testing.

2.1.3. Cognitive interviews

Cognitive interviews are designed to reveal evaluators' thought processes in order to gain an understanding at how evaluators arrive at their answers. CRB conducted cognitive interviews, which were audiotaped and reviewed after each session to modify remaining interviews.

2.1.4. Tool refinement and finalization

The final tool (Tables 1 & 2; Supplemental) consisted of Facilitator Characteristics (i.e., gender, experience, and specialty of the person leading the meeting) and 6 Meeting Elements (i.e., Introductions, Information Exchanges, Decisions, Closings, Communication Styles, and Emotional Support) and several sub-elements.

2.1.5. Overall rating

Evaluators provided an overall rating using a 5-point Likert-type scale for this sentence: "This meeting went well."

2.2. Phase 2: pilot testing

2.2.1. Evaluator characteristics

Evaluators consisted of a multidisciplinary workforce who have experience facilitating and participating in family meetings. Evaluators attended an hour-long training session to ensure consistent application of the tool. During that session, evaluators were told to complete the tool in any ICU family meeting during which goals-of-care conversations were anticipated, defined as meetings where different care pathways (e.g., comfort care versus aggressive pathways) would be discussed and where treatment decisions would be sought. To mitigate bias, evaluators were told to evaluate consecutive meetings.

2.2.2. Tool implementation and follow-up

For the first 5 family meetings, there were 2 evaluators, one of whom knew the family in his or her professional capacity, and the other did not know the family. After finding 97% inter-rater reliability, we moved to having only one evaluator per family meeting.

After the evaluations were complete, we debriefed with evaluators using an open-ended interview guide to further assess the tool's feasibility, and to provide additional explanations for evaluators' scoring logic. Each interview was audio-recorded and transcribed.