

Society for Academic Continuing Medical Education Intervention Guideline Series: Guideline 3, Educational Meetings

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Abstract: The Society for Academic Continuing Medical Education commissioned a study to clarify and, if possible, to standardize the terminology for a set of important educational interventions. In the form of a guideline, this article describes one such intervention, educational meetings, which is a common intervention in health professions' education. An educational meeting is an opportunity for clinicians to assemble to discuss and apply important information relevant to patient care. Based on a review of recent evidence and a facilitated discussion with US and Canadian experts, we describe proper educational meeting terminology and other important information about the intervention. We encourage leaders and researchers to consider and to build on this guideline as they plan, implement, evaluate, and report educational meeting efforts. Clear and consistent use of terminology is imperative, along with complete and accurate descriptions of interventions, to improve the use and study of educational meetings.

Keywords: innovative educational interventions, interprofessional education, knowledge translation, quality improvement, educational meetings, continuing education, continuing medical education, conferences

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The Society for Academic Continuing Medical Education (SACME) commissioned the terminology project to shed light on four major educational interventions for which terminology may be a source of confusion, and, as such, may interfere with progress in research and in application. Based on published evidence reports, systematic reviews, expert opinion, and an earlier foundational project that established the extent to which terminology is a barrier among professionals and

researchers in the field of continuing medical education,¹ the current project selected four interventions with the goal of creating guidelines to assist leaders and researchers in their ongoing use and study of the selected educational interventions. The purpose of each guideline is to standardize terminology and to generate additional discussion to advance the field. This article describes the findings from one of the educational interventions considered: educational meetings.

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The project team used the Chaffee framework, known as “explication,”² to establish a clearer scientific meaning for each intervention, to the extent that current research and thinking allow. Explication strengthens ties between theory, observation, and research by helping experts to use words (terms) in more disciplined ways.² Through concept explication, experts are able to communicate more precisely by having explicit, shared understandings of key terms, which in this project include terms associated with common evidence-based interventions. Once a term is selected, explication includes identifying and reviewing the relevant literature, drafting definitions or descriptions, and applying and revising definitions.² The team modified the Chaffee framework by following it to the point of developing a guideline that SACME and authors of the article will promote for application and revision throughout the continuing education community.

The internal project team (T.V.H., R.E.G., and S.K.) operationalized the Chaffee framework through a consensus process with a group of US and Canadian experts, who were leaders and/or researchers in continuing education. The project team used a series of biweekly surveys to interact virtually with the experts throughout four consecutive 3-month cycles, with each cycle devoted to a single intervention. Based on a review of evidence, the project team drafted an initial survey in each cycle to introduce the intervention of focus, common terms associated with it, sources of recent evidence, and other key articles and resources. With input from the experts, the team developed a second survey and used a modified Delphi technique³ in this and in subsequent survey rounds to solicit feedback about key aspects of the intervention. The Delphi-style surveys continued either until the experts came to consensus on each item or until responses were not moving toward agreement. The Delphi technique is a virtual strategy to generate discussion while minimizing nonproductive group dynamics.³ We modified the typical Delphi technique using the same expert group members across all four cycles of the project. Although not every person has expertise in each intervention, collectively the project team and expert group have specific expertise in, and a general appreciation for, the history, culture, and application of this area of research.

As per the Delphi technique, experts who provided timely feedback (within 8 days) in the Delphi rounds were provided results (personal and aggregate responses) and asked to reconsider their previous responses in the next survey for any items for which the group had not reached consensus. In this way, the team tried to facilitate the experts coming to consensus (defined either as $\geq 70\%$ agreement on any single response or as $\geq 80\%$ agreement on the combination of two adjacent responses at either end of a 5-point Likert scale, when applicable) about different facets of the intervention. Based on the final Delphi results, the project team drafted and sent a guideline to the experts as the fifth and final survey of the cycle with a request for additional feedback that informed the final version described in this article.

This article describes the information contained in the guideline for educational meetings. In this cycle (August to October 2014), 18 experts began the process with participation in the Delphi rounds at 88.9%, 93.5%, and 93.3%, with 14 experts completing all three rounds for an overall response rate of 77.8%. Providing yet another opportunity for interaction and discussion, the authors of this article include both project

team and 14 experts who 1) completed all 3 Delphi rounds, 2) met criteria for authorship, and 3) agreed to authorship. Additional information is available about the cycle and the project's methods.⁴

WHAT IS AN EDUCATIONAL MEETING?

An educational meeting is an intervention used for quality improvement and other professional purposes. The essence of the intervention is that a *group* of professionals *assembles* to *communicate* about important *information* relevant to patient care as part of a series of meetings and/or as part of a multifaceted intervention. Generally, an educational meeting will include a brief *didactic component* (recommended to be brief), such as an expert facilitator's perspective on a clinical case, new or revised guideline, and/or latest evidence. An educational meeting should include an *interactive component* (recommended to predominate the session), which allows participants to evaluate new information and to consider how it relates to (ideally, to the extent possible) higher-order educational outcomes, such as clinician competence, clinician performance, and patient outcomes.

Educational meetings should include preactivities (e.g., review of performance data) and postactivities (e.g., implement a change in practice), which maximize the value of the group time and prioritize the time for activities that cannot be performed by the individual alone (e.g., reading) or by the group through some other evidence-based intervention (e.g., practice facilitation). The communication process during an educational meeting should be robust and three-way, i.e., between participants and the expert facilitator (e.g., case discussion), between the participants themselves (e.g., sharing best practices), and between the participants and the content (e.g., consideration of barriers to implementation).⁵ The outcomes targeted will influence the agenda of an educational meeting and its desired audience, interprofessional or otherwise, as will the use of very specific types of educational meetings (e.g., morbidity and mortality conference and journal club).

WHAT IS THE BEST PUBLISHED DESCRIPTION OF EDUCATIONAL MEETINGS?

To the group's best knowledge, no published definition of educational meetings exists, beyond descriptions of more specific types of educational meetings, such as morbidity and mortality conferences, and beyond operational definitions for the purpose of including or excluding published studies in systematic reviews (e.g., “[health] care providers who have participated in conferences, lectures, workshops, or traineeships”⁶). The group recommends the description in the last section to initiate a dialog about the more sophisticated use and understanding of educational meetings.

WHAT OTHER TERMS DO PEOPLE USE TO DESCRIBE EDUCATIONAL MEETINGS?

The experts came to consensus on the term *educational meetings* to describe this intervention, but they also seriously considered one other term, *interactive educational meetings*. Across the literature, variation exists both in the terms used and in their component descriptions, which are often incomplete.⁷ Any term

used to describe an intervention should include a complete description of what precisely constitutes the intervention strategy.⁸ This advice certainly applies to educational meetings, which is a common but potentially complex intervention.

WHAT ARE SOME INTERVENTIONS THAT MAY BE CONFUSED WITH EDUCATIONAL MEETINGS?

Beyond the various types of specific educational meetings (e.g., journal club) that exist and should be distinguished from one another, interventions that may be confused with educational meetings include educational outreach (also known as academic detailing) and practice facilitation. These two interventions often involve meetings with groups for the purposes of continuing education and an exchange of information between an expert and a clinician or health care team. The differences are that these visits tend to be briefer, the groups smaller, and they do not offer the benefit of direct peer interaction across provider groups being visited. Additionally, educational outreach and practice facilitation visits tend to be more targeted and tailored to an individual provider than an educational meeting with its larger audience, and they also occur in the clinician or health care team's own practice setting rather than in an institutional or hospitality setting as is most common for educational meetings, particularly courses, grand rounds, conferences, workshops, seminars, and symposia.

WHAT ARE SOME IMPORTANT CHARACTERISTICS OF EDUCATIONAL MEETINGS?

Evidence reflected in the most recent systematic review⁹ (first four items) and/or expert opinion (all items) has identified the following characteristics as being potentially important to educational meetings:

1. Consistent attendance (implying engagement) of participants⁹
2. Less complex clinician behaviors targeted for change⁹
3. Mixed format (didactic and interactive), but mostly interactive⁹
4. Serious educational or patient care outcomes targeted for change⁹
5. Baseline adherence to targeted behavior is relatively low
6. Part of, or complementary to, a multifaceted intervention.

Other characteristics (e.g., frequency of meetings and number of participants) may be important too; therefore, additional research is necessary.⁹ As no precise formula currently exists, the best strategy is careful assessment¹⁰ of each educational or quality improvement initiative with these characteristics in mind.

HOW ARE EDUCATIONAL MEETINGS BELIEVED TO WORK?

Solberg's conceptual framework for practice improvement¹¹ may be a helpful theory to guide educational meetings, particularly when they are being used in the service of changing clinician performance and improving patient outcomes, as educational meetings primarily should be.¹² Solberg¹¹ describes that quality improvement is a product of a combination of

identifying a priority and promoting both change process capability and care process content to leverage facilitators and overcome barriers in practice. By modeling the process of planning, implementing, and evaluating efforts to improve patient care—helping clinicians to do (complete a project) and to understand (reflect on and discuss) the process—facilitators of educational meetings can help clinicians to build capacity and infrastructure, especially if an explicit framework guides the process.¹⁰ A series of educational meetings that follows evidence-based practices in continuing education is an appropriate way to support practice improvement.¹²

UNDER WHAT CIRCUMSTANCES SHOULD ONE CONSIDER USING EDUCATIONAL MEETINGS?

Educational meetings can be an effective albeit modest strategy to change clinician behavior and to improve patient outcomes,⁹ but only when educational meetings are planned, implemented, and evaluated appropriately.^{10,12} A variety of evidence-based principles and practices (e.g., needs assessment, multifaceted interventions, sequencing, interaction, and commitment to change) are available to inform educational meetings, and these principles and practices can be incorporated into such meetings as well.^{13,14} As part of a multifaceted intervention strategy, educational meetings can fulfill an array of functions across three important phases of learning: predisposing, enabling, and reinforcing.^{10,15} Although participants may need to adjust to a more active role and to a different agenda and format, such an adjustment is possible if educators provide an explanation (theory and evidence) and support for the changes being made. One author has proposed simple strategies to transform lectures—a common use of educational meeting time—into a more interactive experience.¹⁶ Another author has published a series of steps with brief explanations for planning an effective set of educational meetings.^{17–21}

WHAT OTHER INTERVENTIONS COMPLEMENT EDUCATIONAL MEETINGS?

Depending on the initial and ongoing needs that clinicians and educational programs have, educational meetings can achieve any purpose (planning, implementation, or evaluation) and complement any evidence-based intervention, especially performance measurement and feedback of patient care data and practice facilitation. Use of educational meetings to support performance improvement continuing medical education, also known as PI CME, is a sensible strategy. At the beginning of any quality improvement initiative, educational meetings can allow a facilitator to establish rapport, disseminate information, and inspire change. During an ongoing project, educational meetings can provide an opportunity to offer feedback, share data, and improve an activity (formative evaluation). Finally, at the end of a project, educational meetings can provide an opportunity to debrief on an activity, evaluate an activity (summative evaluation), and plan the next phase of a quality improvement initiative. Much like practice facilitation, educational meetings can be as much a vehicle for delivering interventions as they can be an intervention in their own right. Perhaps, the “vehicle” approach is a better way to conceive of educational meetings, as it is entirely different from the lecture approach.

WHAT IS THE EVIDENCE ASSOCIATED WITH EDUCATIONAL MEETINGS' EFFECTIVENESS?

Authors of the most recent systematic review and meta-analysis of educational meetings concluded: "Educational meetings alone or combined with other interventions can improve professional practice and health care outcomes for the patients. The effect is likely to be small . . . Strategies to increase attendance at educational meetings, using mixed interactive and didactic formats, and focusing on outcomes that are likely to be perceived as serious may increase the effectiveness of educational meetings. Educational meetings alone are not likely to be effective for changing complex behaviors."⁹

WHAT ARE SOME BEST PRACTICES ASSOCIATED WITH EDUCATIONAL MEETINGS?

Given the versatility and comfort with educational meetings, the most important practice concerning this intervention is to increasingly integrate planning, implementation, and evaluation into the educational meeting itself and to use the intervention as a vehicle of bringing evidence and other interventions to interprofessional teams of clinicians in support of practice change.^{10,12} For educational meetings that are still grounded in a passive lecture mode, where the only interaction is a brief question and answer period at the end of the session if time permits, making a gradual transition to a more interactive session is a logical first step toward educational meetings becoming a more robust quality improvement-oriented intervention.¹⁶ People leading educational meetings should consider themselves as "facilitators" rather than as "presenters," and planners need to recruit and to prepare facilitators for this role, especially if they are outside experts not familiar with the program.¹²

WHAT ARE SOME IMPORTANCE RESEARCH ISSUES CONCERNING EDUCATIONAL MEETINGS?

Pressing research issues include a better understanding of important determinants of educational meetings' effectiveness, such as their intensity (e.g., number, duration, and frequency); a format that emphasizes interaction; the complexity of behaviors and outcomes; the seriousness of patient outcomes; and an educational meetings' role in multifaceted interventions.⁹ Collecting and reporting on a comprehensive set of determinants will help the field to improve educational interventions and to understand their effectiveness.^{8,9} How to help participants and other stakeholders to overcome barriers to embrace a more interactive, evidence-based approach to educational meetings is an area worthy of research effort too.²²

WHERE CAN ONE LEARN MORE ABOUT EDUCATIONAL MEETINGS?

The following articles provide helpful guidance on educational meetings:

1. The most recent systematic review and meta-analysis of educational meetings:
Forsetlund L, Bjørndal A, Rashidian A, et al. Continuing education meetings and workshops: effects on professional

practice and health care outcomes. *Cochrane Database of Systematic Reviews*. 2009; Issue 2. Art. No. CD003030. DOI: 10.1002/14651858. CD003030pub2.

2. A framework for planning and evaluating any educational intervention, including educational meetings:
Moore DE, Green JS, Gallis HA. Achieving desired results and improved outcomes: integrating planning and assessment throughout learning activities. *J Cont Educ Health Prof*. 2009;29(1):1–15.
3. A guideline that describes elements of educational interventions that are relevant to planning and reporting:
Davis D, Bordage G, Moores LK, et al. The science of continuing medical education: Terms, tools, and Gaps: Effectiveness of continuing medical education: American College of Chest Physicians evidence-based educational guidelines. *Chest*. 2009;135: 8S–16S.
4. A morbidity and mortality series with a nice description of the planning for, and follow-up to, each session and the interactive agenda that it follows:
Bechtold ML, Scott S, Nelson K, et al. Educational quality improvement report: outcomes from a revised morbidity and mortality format that emphasized patient safety. *Qual Saf Health Care*. 2007;16:422–427.
5. An article that describes strategies to begin to transform a lecture into a more interactive format:
Graffam B. Active learning in medical education: strategies for beginning implementation. *Med Teach*. 2007;29(1):38–42.
6. A three-article case study of a common grand rounds' program and the extent to which it reflects evidence-based principles and practices and barriers and recommendations emerging from it:
Van Hoof TJ, Monson RJ, Majdalany GT, Giannotti TE, Meehan TP. A case study of medical grand rounds: are effective methods being used? *Acad Med*. 2009;84 (8):1144–1151.
Van Hoof TJ, Monson RJ, Majdalany GT, Giannotti TE, Meehan TP. Improving medical grand rounds: barriers to change. *Comm Med*. 2009;73(9):545–551.
Van Hoof TJ, Monson RJ, Majdalany GT, Giannotti TE, Meehan TP. Improving medical grand rounds: recommendations. *Comm Med*. 2009; 73(10):601–607.

Educational meetings are an evidence-based intervention that can be an effective strategy to change important educational outcomes, but reports about the intervention have incomplete data and conflicting terminology. We offer this guideline, which is based on a recent evidence review and an expert consensus process, as a starting point for leaders, who are planning educational meetings, and for researchers, who are studying educational interventions. At the very least, we encourage complete and accurate descriptions of intervention efforts, and caution educators and quality improvement experts from solely relying on terms to convey details or meaning, especially when interventions are multifaceted. Along with SACME, we welcome constructive criticism about the opinions expressed here, and we hope that this guideline will inspire better practice and research in the field.

Lessons for Practice

- An educational meeting is an evidence-based intervention that can support clinicians in efforts to change their behavior and to improve patient care.
- Authors should provide complete and accurate descriptions of educational meetings and avoid reliance on new or established terms.
- Leaders and researchers should engage in ongoing discussion about the terminology, evidence, and theory underlying educational meetings.

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