EPEC-O

Education in **P**alliative and **E**nd-of-life **C**are - **O**ncology

Participant's Handbook

Teach 1:

Teaching Skills 1

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Introduction

Teach 1 explores adult learning with an emphasis on ways to best meet the educational needs of adult learners. Although the primary audience for EPEC-O is oncologists, the material covered may be presented to other health care providers. The goal of this plenary is to introduce the pertinent education science that will facilitate the dissemination of the important EPEC-O information.

Key words

Attitudes, knowledge, skills, behaviors, education theory, passive learning, active learning, learning factors, teaching skills, personal style, challenging participants

Objectives

After studying this module, oncologists and other members of the cancer careteam will be able to:

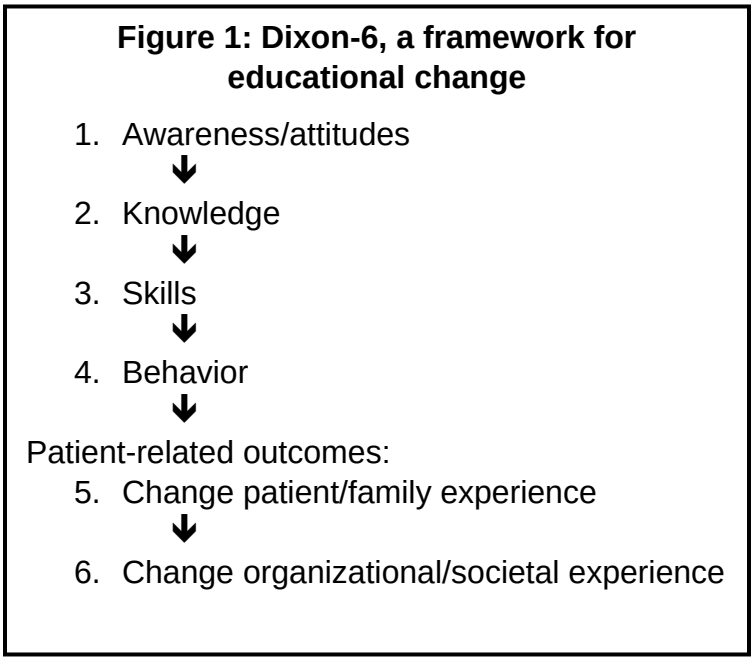
- Describe the goals of education.
- Explain how adults learn best.
- Use personal style and presentation skills to make teaching more effective.
- Cope with 'challenging' participants.

During this module, we are going to focus on the ways people learn; what makes the process more enjoyable, effective, and efficient; and helpful hints to providing a successful educational experience. As teachers, this information is key to maximizing impact. Education research has demonstrated that how information is taught is important to what the learner retains. The challenge for the teacher is to decide the best techniques that will maximize information transfer and retention.

Goals of education

Many teachers suffer from a grand and prevalent delusion – they believe that knowledge alone changes behavior. Yet, the evidence is clear; attitudes and knowledge are necessary, but insufficient, to change behavior.[1] For example, an oncologist gives Grand Rounds on cancer pain management. She hopes that the patients of the physicians who attended will experience pain relief. Yet, education that only transmits knowledge does not change behavior.[2]

Figure 1: Dixon-6, a framework for educational change



Although the conclusions are discouraging, they shouldn't be surprising.

We have learned the same things from education about tobacco, alcohol, sex, diet, hand washing, hypertension, advance directives, etc. If it is our goal to change the patient and family experience, we need to adopt a more precise way of understanding education. Dixon described a cascade of steps of education evaluation that remains helpful.[3,4] We have adapted her cascade to assist our understanding of the components or steps of education (see Figure 1). Knowledge and attitudes precede the learning of new skills. Those skills must be translated into behavior if desired outcomes are to be seen. When enough people are experiencing the desired outcomes, there will be social improvement.

If we use this framework to understand the necessary steps of cancer pain education, we would say that the attitude that 'it is important to control cancer pain' and the knowledge of how to control it come first. Next, the skills of assessing pain, prescribing appropriate medications and teaching patients and families must be learned. Then, the clinician must change his or her behavior and implement the knowledge, attitudes, and skills on a permanent basis in order for the desired outcome to be realized. Patients must also change their attitudes, knowledge, skills, and behavior to control cancer pain. When these behaviors are exhibited by both clinicians and patients, the outcome will improve reports of pain by patients. When all patients within the cancer center/within the society get good relief, we will have achieved a social good.

The EPEC-O Curriculum is designed to help oncologists teach attitudes and knowledge. The information can also be used to teach skills. However, the EPEC-O Curriculum alone

will not lead to behavior change.[5,6] The evidence for behavior change is that the systems in which physicians work must support the implementation of the new knowledge and skills.[7] There are other resources for this element of the education cascade that complement the EPEC-O Curriculum.[8]

In summary, we can take the sum total of our evidence about education to improve cancer pain management in particular, and palliative care in general, and distill it to three take-home messages for those who want to pursue education.

1. Design attitude and knowledge education that is practical (we learn best what we can use), participatory (we remember best that with which we engaged), and acknowledges the multiple other demands on the time of the learner (focus on what they need to know in the shortest time possible—ruthlessly exclude the extraneous).[9,10]
2. Design efforts to mentor and develop the desired skills using the clinical setting. Develop and support the mentors who will ensure that the students can demonstrate the skills.
3. Ensure that the systems are in place to facilitate and encourage the desired behaviors and outcomes.[6]

We will now turn our attention towards helping you master the first take-home message.

How adults learn

Positive and negative learning experiences

Think about your personal experiences with learning. What have been the best or most positive learning experiences? Who was teaching? What did they do? What made the experience so positive?

Reflect on your worst or most negative learning experience. Who was teaching? What did they do? What made the experience so negative?

If your reflections mirror the research, you will have decided that positive learning experiences are associated with respect and experiential training. Your most negative learning experiences are likely related to demonstrations of lack of respect (such as a demeaning or humiliating tone) and boring lectures in which you weren't interested in the subject.

This should not be surprising. The Confucian saying, 'What I hear, I forget; What I see I remember; What I do, I understand' summarizes the same information. More colloquially, the commonly heard, 'See one, do one, teach one' also rests on the same principles.

Teaching models

The 2 most common teaching models are referred to as ‘adult-to-child’ and ‘adult-to-adult.’ Most adults have extensive experience with learning situations involving adult-to-child interactions.

Older teaching style

- Teacher decides what the learners should learn.
- Learners don’t ask questions.
- Learner’s own experiences are not germane.
- Learner is an empty vessel; teacher is a full vessel.

Learner-centered teaching style

- Teacher and learner negotiate what is to be learned.
- Assumes the existence of a background that influences learning.
- Values the learner’s experiences.
- Information is shared between the teacher and the learner.

Many oncologists will have experienced the majority of their ‘formal’ learning experience lecture-based format using the older education style. Consequently, when they provide education or training to others, they are inclined to use the same model.

This contrasts with the evidence. Adults demonstrate better retention and more changes in practice when more interactive educational experiences are provided. They want to be able to see the usefulness of new information immediately, and they want to be able to apply it to their particular environments.

Therefore, teaching should:

- Involve the learner in the learning process.
- Identify the learning goals and objectives.
- Be relevant to the learner.
- Identify solutions to the learner’s problems.
- Engage learners in high levels of thinking such as analyzing, critiquing, and assessing.
- Utilize teaching/training modalities (such as small group process, lecture, and experiential activities) that will best achieve the learning goals and objectives.
- Provide information that will overlap with familiar or known information.

- Reiterate/reinforce information throughout the session.

Passive versus active learning

Passive learning describes activities where the participant observes but is not required to take an active role in the process. Examples are reading, watching a demonstration, or listening to a lecture or interaction between the teacher and another student.

Passive learning has an important role. It is valuable for the transfer of information. It permits the learner to reflect, evaluate, assess, and analyze the information. One major advantage of passive learning is that a large amount of information can be presented. A major disadvantage is that recall of the material is generally limited. Passive learning is most often linked with memorization and simple fact recall. Studies have shown that passive learning can, at best, lead to 10% retention.

Active learning is accomplished when the information is discussed, debated, processed, linked to relevant activities, or incorporated into current decision-making processes. Examples include situations where participants may be challenged with a problem or activity that involves debate and resolution (such as a case conference). Small groups may be convened to negotiate a solution or identify how the issue being discussed is relevant to their current situation (such as a case-based teaching session). Active learning improves retention to about 35%.

Involving the learner actively in the learning process is important because adult learners process information better if they can:

- Do something with the information.
- Discuss it with others.
- Ask questions about it.
- Compare and contrast it to other things in their experience.
- Evaluate the results.

Individual adults generally have a preferred learning style, eg, visual, auditory, kinesthetic. Therefore, a session that includes many people will, ideally, combine modalities to meet the likely range of learning styles in the group. For example, a lecture that includes slides and a handout where the participants can take notes reaches the auditory, visual, and kinesthetic needs within the group. However, if the speaker is inarticulate, the slides are poorly designed, and the presentation moves too fast for the person to take notes, the lecture will fail to meet anyone's needs. An active learning process that involves listening, demonstrations, and interaction is more likely to reach all learners. In addition, adult learners tend to have a social need to interact with others.

Well-designed training programs combine both passive and active modalities. Passive is good for information transfer. However, without an active component, the information that is only shared in a passive learning format is likely to become boring or irrelevant to

the participant. The key to learning for adults is to provide new information that is relevant and usable within a relatively short time. A way to restate the Confucian saying would be: 'What I **hear**, I *forget;* What I hear and **see**, I *remember a little;* What I hear, see, and **ask questions about** or **discuss** with someone else, I begin to *understand*; What I hear, see, discuss, and **do**, I *acquire* knowledge and skill; What I **teach** to another, I *master*.'

As a teacher, the measure of your success is not the information you 'covered'. Your success is measured to the degree to which the knowledge and skills are retained and used by the participants. Active learning is needed for this to happen.

For those teachers who are most comfortable with the lecture-only teaching style and for participants who are most familiar with passive learning, group involvement and active participation may be viewed as problems. Teachers may initially feel they lose control of the group when permitting participants to participate or set the learning agenda. Participants may initially feel they could be learning more (meaning that more material could be 'covered') if they could get the information through lecture or reading.

The answers to these concerns rest on evidence.[4,,6] If we are to be evidence-based teachers as well as evidence-based oncologists, then the way forward is clear. The evidence is that participants are capable of cognitively understanding a great deal of information but can only retain small amounts. Behavior does not change unless active education and a system to support the change are included.

Factors in the learner that influence learning

Regardless of whether an educational session uses passive or active learning, there are other factors that are important. They are important enough that, although the best active techniques are used, learning may not occur at all. In other instances, learning may occur in spite of the teaching provided. These factors relate to the learner.

One or more of the following may be involved:

- Motivation. Nothing stops the learner who wants (needs) to learn.
- Role model. The learner wants to be like the teacher.
- The learner has some (perhaps unsuccessful) experience and wants to do better.
- Learner needs (wants) to know.
- The learner can see practical application of information.
- Learner is as competent in the subject matter as the teacher.
- Learner resents authority figure (teacher).
- Learner is fearful of being inferior or embarrassed—excessive anxiety interferes with learning.

- Learner had negative experiences in the past and has generalized this to all education.
- Learner is distracted and is unable to focus.
- Learner resents being forced to attend.
- Learner has personal barriers (attitudes) to learning the topic (such as a belief that the diagnosis should never be told).

Teachers will want to anticipate the factors that may influence the learner's readiness to learn. However, it is unrealistic to think that every learner will be able to fully participate in every educational session. Assess the participant's needs and issues before the session. Be able to be flexible in adjusting the session to accommodate some influences. For example, if there is general resentment over mandatory attendance, address that issue and negotiate a way to make the time together valuable.

Physician learning

Researchers working to gain empirical grounding for tailoring physician education to the unique features of physician learning have discerned three main points: educational materials should be practical – physicians need to know how to do things more than they need conceptual material or non-useable data; physicians learn better when they participate in the educational process – physicians like to help decide what they learn and they do well if they practice using their new educational material and have a sense of ownership over their acquired material; and education should be to-the-point – physicians have multiple demands on their time and it should be used effectively.

In this presentation, we are focused on presentation skills. And presentations can use interactive methods. However, more active teaching methods, such as case studies, role place, facilitated discussions, use of videos and visual aides, and other methods to enhance participation are discussed in EPEC-O Teach 2: Teaching Skills II.

Presentation skills

Every teacher develops his or her own personal teaching style. It is important for the teachers to express their individual style and not to mimic another. A few points to keep in mind include the following.

- Find a happy medium between pacing and standing stoically in front of the group.
- Stand in a place where everyone can see you. If participants can't see you, they won't hear you.
- Use gestures to help emphasize points. Gestures should be natural and purposeful. They have a beginning and an end.

- Speak to the participants and not to slides or walls. Make eye contact with individual participants – stop long enough with each person to complete one thought. Don't scan the room.
- Vary the volume and tone of your voice to avoid sounding monotonous, ie, 'sing.'
- Be conscious of the speed of delivery. Some variation in speed is good, but avoid talking too slowly (this is boring) or too fast (this is annoying).
- Consciously think about projecting your voice to the most distant part of the room. Although you may use a microphone, don't avoid injecting energy into your voice.
- Enunciate clearly—pronounce words correctly.
- Dress professionally—err on the side of being too formal.
- If you have pockets, leave them as a fashion statement and not a hand holder.
- If you have pockets, empty them before you begin training—clanging change is disruptive.
- Minimize jewelry—especially jewelry that rattle. Avoid distractions.

Here are a few suggestions to help the teacher be more effective.

- Know your audience.
- Know your material.
- Rehearse.
- Be prepared to answer questions.
- Use humor appropriately.
- Be prepared for difficult participants.

Know your audience

Gather as much information as possible about the participants and what they are hoping for. Find out where they work, their professional background, length of time in the field, etc. It is best to get this information in advance of the session so that the training can be modified to meet the particular needs including using appropriate language for the target audience.

Know your material

The audience will know if the teacher doesn't know what he or she is talking about. It is not enough to be familiar with the subject matter and the curriculum. It is important to understand it and be prepared to respond to questions pertaining to the topic. This does not mean teachers need to have all of the answers, but not knowing the majority of the answers often invalidates expertise.

Rehearse

Teaching is a skill like any other. It takes practice to develop.

Many physicians believe that they can review their slides the night before a presentation and that will be sufficient rehearsal for the next day. Others believe they can take notes for their presentation, plan to refer to their notes, and not rehearse. Don't make this mistake. The only way to prepare for this training is to practice.

Rehearsal should not be equated with memorization. Practice you presentation once or twice aloud—preferably in front of a live audience who can give feedback. Choose a 'low risk' audience like your staff, the colleagues who know you, or medical students. Even if the subject matter is not new, it is helpful and wise to practice what will be presented.

By knowing your material and rehearsing, you can avoid one of the worst teaching errors there is: reading to the audience. Participants don't want to be read to. They can read for themselves. They are looking to the trainer to give life to the material and to make it relevant to them.

Be prepared to answer questions

Listen to the question being asked. It is sometimes difficult to ascertain the intent of questions. Questions may be asked to clarify, to gain additional information, to confuse, to trick, to demonstrate participant superiority, etc. If the question is unclear, ask the participant for clarification. If the question is still unclear, reframe the question and ask the participant if that is what he or she wants to know. There are 3 basic rules to answering questions.

Repeat the question: Assure the question was heard correctly and that other participants heard the question as well.

Keep answers short: Answers should be short and to the point. We have all attended sessions where participants have asked questions and the teacher goes off on a new mini-lecture. This serves no real positive function other than to irritate participants.

Don't get defensive! If you don't know the answer, say so and then offer to get the information for the questioner after the session. Don't forget to follow through on the promise! If the questioner has been hostile, try to deflect the hostility. Don't take the hostility personally. The hostile questioner often makes other participants at least as uncomfortable as the teacher. Rephrase the question in non-hostile terms, use humor, or say that this can be discussed during a break. This approach helps maintain control and allows other participants the opportunity to avoid being in the middle of an unwanted confrontation.

Use humor appropriately

Humor is a teaching tool that, when used appropriately, can enhance the educational experience. To be effective, the humor should be related to the subject, particularly as it makes a point or stresses a concept presented. Humor can create a bond between the teacher and the participants, keeps participants alert, increases participant retention of information, and enhances the participant's reaction. There are a few pointers trainers should keep in mind.

- Don't force humor—if humor doesn't fit the situation, don't use it. Likewise, if a joke or humor doesn't go over—don't embellish it to try and make it work.
- Don't make a point with humor without following it up on a serious note. If a point is made using humor, always summarize on a serious note.
- Don't crack a joke or make fun at a participant's expense.
- Don't tell long, rambling story jokes.
- Avoid race, religion, sex, and politics in jokes. It's difficult to know everything about the participants. When in doubt—leave it out.

'Challenging' participants

Ideally, participants come to education activities motivated and invested in the learning process. In reality, every session will likely have at least one 'challenging' participant.

- Know-it-all
- Nay-sayer
- Monopolizer
- Chatterbox
- Reluctant learner
- Preacher
- Unresponsive participant

Know-it-all

This person is an 'expert' in everything being covered. This participant wants everyone to know how much he or she knows. Avoid debate with this participant. Teachers never 'win;' instead, debate leads to a power struggle with the participant for control of the session. Acknowledge his or her expertise and ask if he or she minds being called on as an expert for support on various issues. This usually defuses these participants, at the same time giving them the ego strokes they need.

Naysayer

This person refuses to see how what is being covered can or will work. There are any number of reasons why a participant may be a naysayer. If this is not handled appropriately, teachers may find themselves spending the bulk of their time countering these comments. As with the know-if-all, if the trainer gets caught up with this participant in debate, other participants may feel left out. In addition, it is very difficult not to become defensive. As a rule of thumb, if a naysayer is in the audience, a comment like:

- I see you have a different point of view. I appreciate what you are saying, but there are people here who want to hear what I have to say.

You may cut him or her off. If s/he continues, consider pulling him or her aside during a break and asking him or her to leave since he or she seems unwilling to try to work with the group in identifying ways the training might help him or her.

Monopolizer

A monopolizer may attempt to spend a great deal of time reinforcing what is being said or in contradicting the content. The monopolizer may simply have *a lot* of questions or *a lot* of stories or 'relevant' information. These participants can become very annoying for other participants. Teachers walk a fine line in limiting these individuals. These participants are rarely hostile. Instead, they seem to thrive on the attention the teacher gives. Some recommend bluntly saying:

- We have heard a lot of good information from you today. Let's now give others a chance to speak.

Depending on the setting, this approach will be welcomed by other participants. On the other hand, some participants may be afraid to speak up because they are afraid the teacher will suggest that they are speaking too much. A more gentle approach with these participants is simply to avoid eye contact with this person or, if possible, use body language like turning away from the participant or walking to another area of the room while speaking.

Chatterbox

This participant seems to have forgotten that education is taking place. This person carries on conversations with other participants during the presentation, seemingly oblivious to how his or her behavior distracts others. Although it may be uncomfortable to limit a participant's behavior, this chatter is most likely disruptive for other participants. One way to intervene is to call on the person, asking a question related to the material. Another way is to say:

- I notice there are collateral conversations. Perhaps that means I have been unclear—could you tell me if that is true?

A more subtle approach is to continue teaching while walking over and standing by the participant. Few participants will continue a sideline conversation under this situation. If the chatterer persists, it may be necessary to describe the behavior to the participant.

Reluctant learner

This person may have brought work from the office, work on his or her computer, or may be reading a magazine or newspaper during the presentation. Although seemingly less disruptive than the other participant types, this participant is conveying a negative message to other participants. The message is that 'although I may have to be here, this training isn't important enough for my attention.' Do not take this behavior personally. The behavior should not be ignored, either. Tell the participant you need their undivided attention. Ask them to do something in the session such as comment or be a scribe. Similarly, if this participant is doing work from the office, acknowledge how busy he must be, but ask that he stop for the sake of others in the room.

Preacher

This participant has values. It is not that the other participants don't have values, but these participants expect to infuse their values into the presentation frequently. These values are most frequently expressed when the subject matter is not supporting their values, eg, giving aggressive chemotherapy or withholding all support. Never debate or attempt to modify this person's values. Values take years to develop and will not change in a 5-minute, 2-hour, or 6-hour debate. Acknowledge the participant's values (without editorializing) and move on. If he or she is persistent, acknowledge and point out that not everyone shares their values. This person may be defused by stating to the entire group that it is important to recognize that not everyone shares the same set of values but that everyone's values should be respected.

Unresponsive participant

These participants tend not to take an active role in brainstorming, question asking, or other exercises. Often they give no effective body language feedback to the trainer. These participants may be totally enthralled with the training or they could be daydreaming. They may also maintain this composure to avoid being called on or challenged by the teacher. The only way to know is to check in with these participants during the training. For instance, during a brainstorming exercise, rather than starting with a request for people to volunteer input, ask these participants what they think. Their reaction should give sufficient information as to their level of participation. Some unresponsive participants simply need a little encouragement or ego stroking to become active participants.

Summary

Effective education requires the application of education science. The evidence suggests that adult learners need to participate in order to retain new information. They retain information in direct proportion to their self-identified need to know and the degree to which it helps them solve problems in their day-to-day work. Effective teaching involves preparation, practice, and the use of a variety of teaching techniques and styles to engage the learner.

Key take-home points

The more you engage the learner, either by identifying problems he or she has, or getting the learner to discuss, debate, and apply the information, the more likely you are to have the effect you want in teaching.

Pearls

1. The most important thing you can say in a presentation is, 'for example.'
2. Tell them what you will tell them, tell them, and tell them what you told them.

Pitfalls

1. Try to 'cover' all the material.
2. Feeling like, if you don't 'cover' enough, they won't think you are very smart.
3. Trying to impress people with your erudition.

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Describes the large gulf between best evidence and clinical practice. Education and persuasion have not been successful. Authors explore knowledge translation as a model for improvement.

[8] The Center to Advance Palliative Care. Visit http://www.capc.org.

A national program of the Robert Wood Johnson Foundation dedicated to helping hospitals and health systems develop clinical palliative care programs.

[9] Slotnick, HB. How doctors learn: education and learning across the medical-school-to-practice trajectory. *Acad Med*. 2001 Oct;76(10):1013-1026. PMID: 11597840. Full Text

Based on existing research, proposes theory that physician education best guided by 3 principles: 1) physicians, whether in training or practicing, seek to solve problems they recognize, 2) physicians want to be involved in their own learning, 3) instruction must both be time-efficient and also demonstrate the range of ways in which they can apply what they learn.

[10] Slotnick, HB. How doctors learn: physicians' self-directed learning episodes. *Acad Med*. 1999 Oct;74(10):1106-1117. PMID 10536633. Abstract.

Qualitative study of 32 physicians. Two varieties of problems (specific and general) precipitate learning. Learning episodes follow stages: scanning for problems, deciding whether to pursue the learning task, acquiring new knowledge and skill, gaining experience with what has been learned.