

EFFECTIVE PRECEPTOR SERIES

Learner-Centered Education

TEACHING SKILLS FOR THE PRECEPTOR: LEARNER-CENTERED MODEL

What Is Learner-Centered Teaching?

Learner-centered teaching is a model that centers around the student and is student-driven. In contrast, traditional faculty-centered teaching is instructionally driven with the instructor delivering the educational materials.

Tell Me More!

In traditional instruction, the content expert – the instructor – conveys and transmits the material and information the student is expected to learn. In learner-centered teaching, the instructor is the facilitator of student-active learning. Even though the instructor still controls the content, the student is directly involved in the discovery of knowledge, and uses inquiry-based methods to understand and use the material. This model engages students in the learning process and promotes lifelong learning.

What Is Learner-Centered Education?

Learner-centered education is a teaching and learning model in which student learning drives the educational encounter. The student takes on a more active central role and the instructor serves as a facilitator. This model places more responsibility in the hands of the student and requires the instructor to serve as the “presenter” of knowledge, rather than the traditional “source” of knowledge.

Is Learner-Centered Education Effective In The Ambulatory Environment?

The ambulatory environment is unique and different from the hospital setting. In the hospital environment, time is usually blocked off in the form of rounds to discuss patients; in the outpatient setting, the student comes

to the preceptor’s office. In this setting, the preceptor is often immersed in his/her clinical practice, and learning moments tend to be the few minutes that can be squeezed in between seeing patients. It is more effective for the student to take a central and active role in learning to optimize the educational encounter.

What Is The Major Role of the Preceptor?

The preceptor designs and fosters the student’s learning environment, and acts as the facilitator of student initiated active learning by empowering the learner and enabling them to contribute more to the educational encounter. Traditionally, because of the time pressures typically experienced by preceptors in the office setting, target behaviors are focused more on facts and efficiency. Thus, the learner becomes more comfortable in summarizing and reporting, rather than verbalizing thoughts and questions. In learner-centered education, the preceptor role becomes crucial in fostering the proper educational environment to promote thinking and reasoning from the learner.

What Are The Responsibilities Of The Learner?

In order for the learner-centered model to be effective, the student must be engaged and active. In the traditional approach, students directly observe the faculty interacting with a patient. This approach tends to be more passive, and students receive mainly low-level factual information. Even in encounters where students do the majority of the talking, they tend to report factual information and are rarely required to verbalize their problem-solving efforts. The majority of interaction between the preceptor and the learner focuses on giving the facts of the case or on the preceptor asking questions about the facts of the case. In the learner-

centered model, the student needs to be more proactive in discussing the educational encounter beyond the facts, and should not be afraid to verbalize his or her thought process or to ask questions. In addition, the student needs to complement this encounter with follow-up learning after leaving the office.

SNAPPS: A LEARNER-CENTERED MODEL FOR OUTPATIENT EDUCATION

What Is SNAPPS?

SNAPPS is a teaching model, described by Wolpaw et al. as a learner-centered model for case-presentations to the preceptor in the ambulatory setting. It consists of six steps:

1. Summarize, briefly, the history and findings
2. Narrow the differential to two or three relevant possibilities
3. Analyze the differential by comparing and contrasting the possibilities
4. Probe the preceptor by asking questions about uncertainties, difficulties or alternative approaches
5. Plan management for the patient’s medical issues
6. Select a case-related issue for self-directed learning

Summarize, Briefly, The History And Findings

The student sees the patient, obtains the history and performs the physical examination, as appropriate. The student then presents the case to the preceptor in a concise summary. The summary should not occupy more than half the time of the learning encounter and is typically no longer than three minutes. The summary should be condensed to relevant information and the student should be encouraged to present the case at a higher level of abstraction, similar to how a resident or practitioner would

by putting the patient information and findings all together in a succinct but informative way. This would allow the student to more successfully diagnose the case.

Example: The patient had onset of acute right lower quadrant pain, which subsequently became more intermittent in nature.

Narrow The Differential To Two Or Three Relevant Possibilities

The student discusses what he or she thinks is going on by narrowing down the differential to two or three most common diagnoses. This step requires a commitment from the learner, similar to the microskills model of clinical teaching. Early in the process, the student might have to “guess.” As the student’s problem-solving skills advance, he or she will be able to make a better list of possible diagnoses. Most importantly, the student should present the initial list to the preceptor before the preceptor engages in revising or expanding the list.

Example: For the reproductive age woman presenting with right lower quadrant pain, the student should be able to come up with the following differential diagnosis: ectopic pregnancy, ovarian torsion, appendicitis.

Analyze The Differential By Comparing And Contrasting The Possibilities

The student initiates a discussion about the possibilities and analyzes why the patient presentation supports or does not support a certain diagnosis.

Example: For the differential above, the student might say, “I think ectopic pregnancy is a concern because of the right lower quadrant pain and the history of prior ectopic; however, I think it is more likely to be ovarian torsion because of the nature and onset of the pain, as well as the timing during the menstrual cycle.” This discussion encourages the student to think out loud in front of the preceptor and outlines the student’s thinking process. It can stimulate an interactive discussion with the preceptor in which the student is likely to gain additional benefit from the encounter. Obviously,

the preceptor should take into account the level of the learner. The differential diagnosis and the discussion will become more sophisticated as the learner advances.

Probe The Preceptor By Asking Questions About Uncertainties, Difficulties Or Alternative Approaches

During this step, the learner discusses areas of confusion and questions the preceptor, rather than waiting for the preceptor to initiate the probing. The learner should utilize the preceptor’s knowledge base to better understand the problem and refine his or her own knowledge. This step exposes the learner, and the preceptor can learn a great deal about the student from the questions asked. This also provides the preceptor with ideas for potential case-related issues for self-directed learning after the encounter (see below).

Example: For the above patient, the student asks, “What else should I include in my differential diagnosis?” or “Is it possible to have an ectopic pregnancy in a patient who reports a last menstrual period two weeks prior to presentation?” The preceptor might discuss the importance of ruling out pregnancy in all reproductive-age patients and the potential inaccuracies in menstrual period reporting.

Plan Management For The Patient’s Medical Issues

The learner initiates a discussion of patient management with the preceptor and must outline a brief management plan or next steps in possible interventions. Again, the learner has to commit, but this step encourages the learner to immediately use the preceptor as a source of knowledge and expertise.

Example: “I would like to first rule out pregnancy with a urine hCG, and if positive I would order a quantitative hCG followed by imaging if it is positive”.

Select A Case-Related Issue For Self-Directed Learning

In this final step, the learner is encouraged to identify a learning

issue as a result of the discussion of the patient encounter. The learner should devote time to explore this issue further on the same day as the encounter. Although initiated by the learner, the preceptor should guide or redirect the learner to ensure an appropriate case-related issue is selected.

Example: After this encounter, the learner decides he or she wants to learn more about ectopic pregnancies or may conclude that he or she is interested in focusing on the different presentations of patients with ectopic pregnancy and study more risk factors leading to the condition. At the next office encounter or meeting, the learner should discuss any remaining questions or areas of confusion with the preceptor to maximize the benefit from the encounter with the preceptor.

Summary

The SNAPPS model for case presentations to the preceptor in the ambulatory setting is a good example of learner-centered teaching. It works effectively under the typical conditions in a preceptor’s office, encourages students to be more proactive in their learning, and fosters a partnership for learning between the student and the preceptor.

LEARNER-CENTERED TEACHING MODELS HAVE THE FOLLOWING BENEFITS:

For The Student

- Students are more actively engaged in learning
- Students are more motivated as learners
- Students gain knowledge and communication skills
- Students begin to develop a habit of self-directed lifelong learning

For The Preceptor

- Preceptors interact more closely with students
- Preceptor feedback is better informed and more appropriately aimed
- Preceptors are better equipped to evaluate learners
- Preceptors gain a better perspective of student’s knowledge base

SNAPPS Is A Good Example of A Learner-Centered Model For Case Presentations To The Preceptor In The Outpatient Setting

It consists of the following six steps:

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5. Plan management for the patient's medical issues
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Reference: Terry M. Wolpaw, MD, Daniel R. Wolpaw, MD, and Klara K. Papp, PhD. SNAPPS: A Learner-centered Model for Outpatient Education. Acad Med. 2003;78:893-898.



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