For the Office-based Teacher of Family Medicine

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Feature Editor

Editor’s Note: In this month’s column, Douglas Lewis, MD, discusses how the Socratic method can be used in office-based teaching to help the learner gain new knowledge. Dr. Lewis is the associate director of the Via Christi Family Practice Residency in Wichita, Kan.

I welcome your comments about this feature, which is also published on the STFM Web site at www.stfm.org. I also encourage all predoctoral directors to make copies of this feature and distribute it to their preceptors (with the appropriate Family Medicine citation). Send your submissions to williamh@bcm.tmc.edu. William Huang, MD, Baylor College of Medicine, Department of Family and Community Medicine, 3701 Kirby, Suite 600, Houston, TX 77098-3915. 713-798-6271. Fax: 713-798-7789. Submissions should be no longer than 3–4 double-spaced pages. References can be used but are not required. Count each table or figure as one page of text.

Using the Socratic Method in Office-based Teaching

Douglas P. Lewis, MD

I have explored various teaching methods and styles and have found the Socratic method a useful tool for educating students and residents on the principles and practices of family medicine. While the Socratic method is often viewed as a teaching strategy for group settings, it also is an effective method for promoting learning during the one-on-one dialogue between teacher and learner. Therefore, it is an excellent tool for office-based teaching that preceptors can easily learn with some background education.

Socrates was a Greek philosopher who lived from 470 to 399 BC. He was married and had three children. After serving in the military, he spent most of his time talking to whomever would listen. Due to his wisdom, he became well known for his method of inquiry and gathered a devoted following. However, not everyone approved of his activity. Some Athenians felt he was leading their young people astray and brought him to trial before 501 citizens, where they found him guilty of impiety by a narrow margin. The prosecutor recommended a sentence of death, and the people of Athens agreed, believing that the guilty must be punished. Socrates did not flee as his supporters encouraged him to do. Instead, he voluntarily ingested hemlock and died. Thus a legend was born.

We understand his teaching style from the writings of Plato, his most famous student, since Socrates himself wrote no opinion or treatise. Many discussions centered around sharing opinions on moral issues such as piety or justice. After feigning ignorance of the subject at hand, Socrates demonstrated his skill as a teacher by asking a series of logically leading questions that revealed the scope of the learner’s understanding and both identified and redirected faulty logic. Through this process, the learner realized the weakness of his beliefs, became aware of new information, and fine-tuned critical thinking skills. Revelation and self-discovery were inherent to the process.

For the Socratic method to work effectively in the clinical setting, the teacher must have a firm understanding of the topic at hand. When a learner presents an error in knowledge or judgment, the teacher must quickly recognize where the deficit lies and decide on the specific teaching point. The goal then becomes guiding learners to a self-awareness of their deficit via a series of logically connected questions. When done properly, the learners will recognize their error and take incremental steps in the right direction until eventually arriving at the correct answer on their own.

How does this work in actual practice? Imagine a scenario where a medical student presents a patient

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who is obese and has been having polyuria, polydipsia, and polyphagia for 8 weeks with 15 pounds of unexplained weight loss. There is a family history of diabetes, and the student suspects that his/her patient has developed the same. The student’s suggestion to confirm the diagnosis is ordering a hemoglobin A1C. The clinical teacher recognizes the learner’s knowledge deficit: HgbA1C is not the ideal way to confirm suspected diabetes since it is not a direct measure of blood sugar and is not immediately available to the clinician. The task becomes formulating a series of logically leading questions to bring the learner to the self-discovery that a random blood sugar is actually what needs to be obtained. The dialogue may go like this:

Instructor: “What is diabetes?”
Student: “Elevated blood sugar.”
Instructor: “What does a HgbA1C tell you?”
Student: “If it’s elevated, it tells me my patient has diabetes.”
Instructor: “You are correct that it can assist you in making the diagnosis, but is there a better, faster way to do it?”
Student: “Not that I can recall.”
Instructor: “What does a HgbA1C measure?”
Student: “Glycosylated hemoglobin.”
Instructor: “Right. Is that a direct measure of blood sugar?”
Student: “Well no. It indirectly gives an estimate of blood sugar levels over time.”
Instructor: “Yes. That’s great. So how could we obtain a direct measure that could allow us to make an immediate diagnosis rather than waiting a few days for the HgbA1C to come back from the lab?”

Student: “We could directly measure blood sugar.”
Instructor: “Excellent. We can make the diagnosis now and explain to the patient why he has had those symptoms. Treatment can then be started immediately instead of days later.”

This is a simple but not unlikely example. A knowledge deficit was readily apparent from the presentation. Through the instructor’s series of questions, the student reviewed known information and the student’s understanding increased until he/she realized that a random blood sugar was the best test for the patient. Positive feedback was given directly through words, but also indirectly by the instructor, allowing the student to find the answer by him/herself. The instructor demonstrated the logical sequence of questions to ask in approaching the problem so that in a future situation, the student can ask him/herself similar questions and lead him/herself to the right answer.

In summary, the Socratic method is a powerful tool for promoting and teaching critical thinking skills. The one-on-one dialogue between teacher and student is ideal for its use. It definitely takes practice to become familiar with the method because the focus is on assisting the learner in the development of critical thinking skills through the process of self-discovery. Once competent, an instructor can efficiently and effectively utilize the Socratic method in an office-based setting.

A word of caution is necessary. Socrates often incorporated irony into his dialogues. When added to a natural tendency toward sarcasm, he often angered people with his questioning. Similar tactics that antagonize or humiliate the learner have no place in effective medical education. Instead, the teacher must encourage the learner and create a comfortable learning environment. Equally important is the consideration that not everyone learns in the same fashion and that no method will work for everyone or under every circumstance. However, in my experience, positive response is the rule. I hope you find it equally effective.

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REFERENCES