

Practical Framework for Fostering a Positive Learning Environment

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The Council on Medical Student Education in Pediatrics continues the series about skills of, and strategies used by great clinical teachers. Great clinical teachers recognize that many things influence students' learning, including what they teach, how they teach, and where they teach.^{1,2} "Where" refers to the learning environment.

Although the term "environment" may conjure visions of trees, snow-capped mountains, and rain, the "learning environment" refers to the setting in which the curriculum exists. The learning environment includes the physical, social, and psychological context in which students learn and the overall atmosphere or culture pervading the setting where students and clinical teachers work and learn together.^{3,4} Although the learning environment of an institution is greatly influenced at the organizational level, this article will focus on elements under the control of individual teachers. We describe practical ways busy clinical teachers can foster a positive learning environment.

WHY A POSITIVE LEARNING ENVIRONMENT IS IMPORTANT

A positive learning environment helps students succeed,⁵ affects their moral development,⁶ and models a humanistic approach to medicine.⁷ Recently, the Association of American Medical Colleges released a statement on the optimal learning environment.⁸ However, for decades, great clinical teachers have known that the learning environment affects ethical and personal development.⁹ Orienting students leads to improved preparedness for clinical work,¹⁰ and

encouraging students to be active participants in the learning process leads to enhanced learning.¹¹ In addition, the presence of exemplary role models enhances learning.¹²

HOW TO CREATE A POSITIVE LEARNING ENVIRONMENT

Clinical teachers foster a positive learning environment in many practical ways (Table 1). In pediatrics, students worry about "breaking" a child, "dropping a baby," "hurting" a child, not knowing how to relate to children, and not knowing how to examine "such a small baby" or calm a baby down.¹³ They also worry about the parents' reactions, dealing with "2 things at once" (the parent and the child), "moms yelling" at them, and not knowing what to say to parents or how to answer their questions.¹³

Teachers have a role in addressing these concerns explicitly, giving students practical tips in communicating with patients and families, and examining patients in developmentally appropriate ways. Ideally, the conversation occurs at the beginning of a teacher-student interaction (whether the start of a shift in the emergency department or the first day of a multiweek experience). Great clinical teachers provide practical tips about working with pediatric patients and families, such as being flexible with the order of the physical exam, adjusting the history and physical exam to the developmental age of the child, using parents as allies in the physical exam, talking to patients about their interests, getting down to the patient's level, and appreciating the

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Dr Bannister conceptualized and drafted the initial manuscript; and all authors reviewed and revised the manuscript and approved the final manuscript as submitted.

www.pediatrics.org/cgi/doi/10.1542/peds.2015-1314

DOI: 10.1542/peds.2015-1314

Accepted for publication Apr 22, 2015

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PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275).

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FINANCIAL DISCLOSURE: The authors have indicated they have no financial relationships relevant to this article to disclose.

FUNDING: No external funding was secured for this study.

POTENTIAL CONFLICT OF INTEREST: The authors have indicated they have no potential conflicts of interest to disclose.

TABLE 1 Practical Ways Clinical Teachers Can Enhance the Learning Environment^{5,21–23}

Important Aspects of a Positive Learning Environment	Practical Ways to Make This Happen
Preceptor aware of resources available at course/clerkship and institution level Students feel expected	Have a list of contact names and numbers for student affairs, mental health support, clerkship director, etc. Contact students before rotation. Explain where to park, when and where to arrive, how to dress, what to bring. ¹⁰
Students feel welcome	Orient students upon arrival. Give them a place to put their coat, backpack, lunch, etc. Introduce student to nurses, receptionist, and other people in learning environment. ^{10,14}
Students have a space to learn	Allow students to use your internet, textbooks. Ideally, have a desk or some sort of space for students.
Students have autonomy	Ideally, have students see patients on their own while the preceptor continues to see other patients.
Students are part of learning process	Make sure students are aware of, and contribute to, objectives and learning schedule.
Communication is open	Model open communication with students and all members of the health care team. ¹⁴
Observation occurs Feedback occurs regularly	Observe students in a focused, direct way. ¹⁷ Provide concrete feedback. ¹⁸
Students have opportunities to show their progress	Provide opportunities to practice after feedback, then observe the targeted skill again, so that students can demonstrate progress. ¹⁹
Questions are asked in a respectful way	Pay attention to how questions are asked. Construct questions based on students' ability. ²⁴
The environment is respectful	Model respectful communication with students, patients, families, and all members of the health care team.
Students have ample time to learn and participate in other activities (concept of wellness)	Schedule time for students to study on their own as well as time for students to pursue outside interests.
Students feel supported	Inquire as to how students are doing. Direct students to student affairs office, faculty advisor (if applicable), and other resources at medical school if needed.
Students receive assistance in realizing the meaning of learning	Articulate how learning will positively influence students' roles as future physicians.
Students are excited to learn	Create an environment in which students are eager to participate and learn.
Students experience positive peer interactions	Consider teaching 2 students at a time.
Students' roles are clear	Make expectations clear. Make sure students understand their roles and the roles of all members of health care team. ¹⁴

fun and playfulness of this patient population.¹³

We have organized, in a typical timeline, actions great clinical teachers take to create a positive learning environment, from before students arrive to the end of their clinical experience.

BEFORE STUDENTS ARRIVE

Fostering a positive learning environment begins before students arrive to work with a teacher. Although administrative logistics are

not a highlight of this article, knowing the course or clerkship director and how to contact him or her with questions or concerns is important. Clarifying the clerkship director's expectations for students in clinical settings and criteria for assessment and grading prepares the teacher to explain these parameters to students when they arrive, so students know from the beginning the basis for assessment in the clinical setting.

Before they arrive, students need to be oriented regarding the location of the clinical experience and

expectations such as when to arrive, how to prepare, and what to bring.¹⁰ Students should be made aware if they are supposed to be in different locations on different days (for instance, for school visits, multidisciplinary meetings, or grand rounds). Alerting students about the medical tools they do or do not need to bring allows the student to arrive prepared. Letting students know the types and ages of patients being seen and conditions likely encountered permits advance reading in developmental or diagnostic principles so that the student can demonstrate knowledge and be slightly more comfortable in a potentially scary setting.

YOUR TIME WITH THE STUDENT

Upon beginning a clinical experience, students need to be oriented about expectations (the teacher's and the clerkship director's), objectives, logistics (eg, where to store personal items, how to access the internet), and organization of the rotation (eg, whether students will see patients initially on their own, how much time should be taken per patient).¹⁰ Students should be introduced to all members of the health care team; staff and nurses need to be introduced to students and oriented to their roles so that students' purpose on the team is clear.¹⁴

Teachers who role-model respect and concern for students' well-being and learning set the stage for success.¹² Creating a safe environment in which students can take risks (such as expanding the differential diagnoses), stretch their limits, learn, and grow is important.⁴ A safe learning environment allows learners to acknowledge their attitudes and beliefs, knowledge gaps, uncertainty, and mistakes. Humility can be a powerful tool and requires open-mindedness, a willingness to consider other views, and a readiness to learn from other perspectives. Some teachers may be reluctant to say

"I don't know" or "let's look it up" for fear of appearing incompetent. A teacher's willingness to admit ignorance is a powerful way to model openness to lifelong learning and build a safe learning environment for everyone.¹²

Teachers can build a positive learning environment by avoiding interrupting students before they finish presenting a case and using good eye contact, a supportive tone of voice, and appreciative facial expressions to create students' sense of safety.¹⁵ Humor, when used occasionally, can motivate attention and, more importantly, can foster a safe learning environment by diffusing anxiety and tension.¹⁶

During interactions with students, several important concepts contribute to a positive learning environment: direct observation,¹⁷ formative feedback,¹⁸ and open communication.¹⁴ In addition, students generally want to progress during each clinical placement, and they appreciate when teachers create an environment that facilitates progress by providing targeted feedback, opportunities to practice the skills about which they received feedback, and then opportunities to demonstrate progress to their teachers.¹⁹ While together with the student (whether during an emergency department shift, a few days on the wards, or several months in clinic) teachers can enhance the learning environment by being positive role models¹² and treating students as meaningful members of the health care team.¹⁴

AT THE COMPLETION OF YOUR TIME WITH STUDENTS

Upon completion of a shift or rotation, great clinical teachers reflect with their students to review learning points and logistical issues.²⁰ Importantly, great clinical teachers provide relevant and meaningful summative feedback and offer concrete suggestions on how students

may improve.¹⁸ The great clinical teacher also asks for feedback, for example, by asking, "how could I have made this experience more effective for you?" Discussing how concepts learned by students will enhance their future medical practice will complete the learning cycle in a positive environment.

CONCLUSIONS

Great clinical teachers take deliberate actions to foster a positive learning environment. They recognize that making the clinical setting feel safe, welcoming, and open will lead to greater learning and enhanced patient care. They appreciate that the students will, in the not-too-distant future, be their colleagues, and they treat them with the respect and support they deserve. Ultimately, the learning environment enriches the effect of the teacher.

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Pediatrics 2015;136:6
DOI: 10.1542/peds.2015-1314 originally published online June 15, 2015;

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Pediatrics 2015;136;6

DOI: 10.1542/peds.2015-1314 originally published online June 15, 2015;

The online version of this article, along with updated information and services, is located on the World Wide Web at:

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