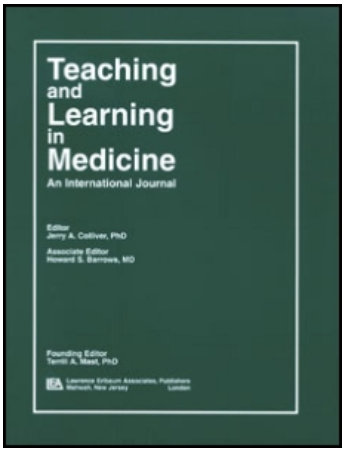

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DEVELOPMENTS

The Problem Learner

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Background: *A problem learner is a learner whose academic performance is significantly below performance potential because of a specific affective, cognitive, structural, or interpersonal difficulty. Problem learners are difficult for the clinical preceptor to manage.*

Description: *We propose a general problem-solving process, the S-T-P model, through which unique solutions for different problem learners can be developed. The S-T-P model is a process that incorporates feedback and problem solving; it consists of three steps: (a) specify the problem (S); (b) desired target state (T); and (c) procedure, plan, or path to get from S to T (P).*

Evaluation: *We offer suggestions for the evaluation of the problem learner, including more emphasis on peer and self-evaluation and insights to teaching and implementing the S-T-P model, including the use of role play.*

Conclusions: *Considerations of the problem learner may suggest evaluation, curricular, and organizational changes in residency programs and medical schools.*

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Medical training in the United States consists primarily of the teacher–preceptor model of education using experienced clinical physicians as preceptors. Many physicians in the teacher–preceptor role, despite extensive medical experience and knowledge, have had little formal training in educational theory and techniques.[1,2] Despite this lack of training, the process is still largely successful, which accounts for its persistence in modern medical educational systems. This success may be due to the preceptor, who possesses the innate gift of teaching, or to the motivated, experienced learner who has the ability to interact positively with the preceptor to optimize learning. The small group of students or residents who have affective, cognitive, structural, or interpersonal problems that lower their performance potential, however, often poses a problem for the clinical preceptor who usually lacks specific knowledge of teaching and interacting with the problem learner. Studies have highlighted the difficulty preceptors have in interacting with the problem student.[3–7] Other studies in the United States and other countries have demonstrated that the issue of the problem learner is found in all arenas of medical education.[5–7]

We define the problem learner using a modification of Quirk's definition: a learner with academic performance that is significantly below performance potential because of a specific affective, cognitive, structural, or interpersonal difficulty.[8]* Problem learners can be found in any teaching–learning setting (e.g., classrooms, bedside teaching), and they may be particularly evident in specific situations (e.g., interviewing patients, formulating a differential diagnosis). The semantics used in the description of the problem learner are confusing. The studies of the Association of American Medical Colleges (AAMC)[4] refer to the "problem student." Quirk[8] referred to "students with learning problems." Other faculty have informally used terms such as the *annoying student, difficult student,* or *stressed student.* Often, the student with a problem in a learning situation is referred to as a student with a learning disability. Although preceptors will encounter students with specific learning disabilities, the majority of problem learners encountered in the medical education setting more appropriately fall into the categories described next.

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*We believe that the label *problem learner* can have a pejorative connotation. However, because this terminology is used in relevant literature, maintaining the label is important for consistency in locating material on this topic.

Type and Frequency of Problem Learners

We identify four classes of problem learners (affective, cognitive, structural, and interpersonal). The first three classes are from Quirk's[8] definition, and the fourth class was inspired by the AAMC[4] studies. This classification is a tool for grouping the types of problem learners. There may be some problem learners that have characteristics of more than one category.

The *affective* class of problem learners are those who are dealing with personal adjustment events such as transition into clinical rotations, marital or relational difficulties, illness, death in the family, or poor grades. The difficulty in handling such pivotal events often triggers affective reactions resulting in learning problems related to motivation and memory. Psychologically, the affective state typically involves low self-esteem, feelings of being overwhelmed, fear of failure, depression, anxiety, guilt, and feelings of inadequacy. These psychological states affect the learning process, causing avoidance of learning, failure to perform, memory loss, withdrawal, and lower aspirations.[8] If a learner feels anxious or incompetent, active learning may be blocked.[9] The psychological states and learning problems all move in a vicious cycle of feeling bad, poor performance, feeling bad, and so on.

The *cognitive* class of problem learners typically has problems in one or more of five arenas:

1. Written communication: These problems involve slow reading, poor reading ability, inability to complete assignments, and simply falling behind with assignments.
2. Spatial–perceptual problems: These learners usually have difficulty seeing in three dimensions and will often have problems in anatomy or surgery.
3. Oral communication problems: These problems center around how to ask questions and often occur in learners with English as a second language. The learner with oral communication problems may have particular difficulty interviewing patients.
4. Poor integration of material: Learners with this problem have difficulty with conceptual or abstract thinking. This is especially evident on tests or in discussions.
5. Poor fund of knowlege: Learners with a poor fund of knowledge typically have gaps in their knowledge base. Some of the gaps may be very basic material that the learner has forgotten or did not learn at school.

The cognitive class of problem learners is the most commonly described, perhaps because the clear deficiency of skills seems easier to address. If cognitive problems are recurrent, persistent, and/or chronic they may reflect true adult learning disabilities that warrant special attention and evaluation by specialists in the field of learning disabilities and special education.

The *structural* class of problem learners refers to learners who are unable to structure their experiences in the environment. These individuals typically have poor time management, lack of organizational skills, and poor study habits. These learners are generally disorganized and have difficulty keeping "on top" of things.

The *interpersonal* class of problem learners is composed of learners who have difficulty interacting with others. These students may be shy or nonassertive, bright with poor social skills, manipulative (e.g., con artists), or overeager. They may challenge everything; have ethnic, racial, or gender prejudices against patients; have inappropriate grooming or dress; or have substance abuse problems or overt psychiatric problems. These problems typically interfere with learning because it is difficult to interact with these individuals. These learners similarly have difficulty interacting with patients, staff, and faculty.

Hunt et al.[10] examined the frequency and difficulty of problem learners. They asked medical school teachers to assess how frequently they saw problem students with particular behaviors and how much difficulty they had with them. They divided the results into four groups: (a) Type I: seen frequently and difficult to manage, (b) Type II: frequent and not difficult, (c) Type III: not frequent and difficult, and (d) Type IV: not frequent and not difficult. Their types are presented in Table 1. From the typology of Hunt et al.,[10] it is evident that preceptors are more likely to see a learner who has interpersonal or cognitive problems, and they identify students with interpersonal problems as most difficult to manage. Type III learners are similarly difficult but, according to this group of teachers, are not seen very often.

Preceptors from different disciplines may differ in their perceptions of how difficult it is to manage different problem-learner types. For example, in a workshop we conducted with emergency-medicine physicians, there were greater concerns about problem learners who had a lack of interest, were not motivated, were "shoppers searching for correct answers," and "just didn't get it" due to a variety of reasons. Hunt et al.[10] found that internists, compared to pediatricians, obstetricians and gynecologists, and psychiatrists, were more likely to see students "who didn't measure up" intellectually. Psychiatrists in this study saw students with psychiatric problems more frequently than did preceptors from other disciplines. In the same study, pediatricians reported the highest occurrence of learners who challenge everything, and obstetricians and gynecologists reported a low frequency of problem learners in general. As such, solutions for the problem learner cannot be generally prescribed and should be unique to school, hospital, discipline, and environment.

Table 1. *Frequency of Problem Learners Clustered by Particular Behaviors and Difficulty in Management*

Difficulty	Frequent	Not Frequent
Difficult	Type I Bright with poor social skills (I) Shy, non-assertive (I)	Type III Cannot be trusted (I) Psychiatric problem (I) Substance abuse problem (I) Manipulative (I)
Not difficult	Type II Poor integration of material (C) Overeager (I) Unable to focus on important issues (C,A) Disorganized (S) Disinterested (A) Poor fund of knowledge (C)	Type IV Too casual or informal (I) Avoids work (A) Intellectually inferior (C,A,S) Avoids patient contact (A,I) Does not show up (A,I) Challenges everything (I) Awkward (I)

Note: Types from Hunt et al. I = interpersonal; C = cognitive; S = structural; A = affective.

Description

Assessment and Intervention

Because problem learners can be difficult to manage and because there are differing perceptions of the problem learner (types, frequency, and difficulty of management), there is a need to follow guidelines when developing strategies to manage these students. We propose a general problem-solving process through which unique solutions for different problem learners can be developed. This process incorporates feedback and problem-solving principles and provides an opportunity to practice by means of role play. The proposed problem-solving process is a modification of Schmuck and Runkel's[11] S-T-P method for problem solving. Because the S-T-P model has strong parallels to the doctor–patient model in the diagnosis and management of medical illness, we suggest that physicians are familiar with the constructs of this model and will be able to dialogue effectively with the problem learner (see Figure 1). The model consists of the following steps.

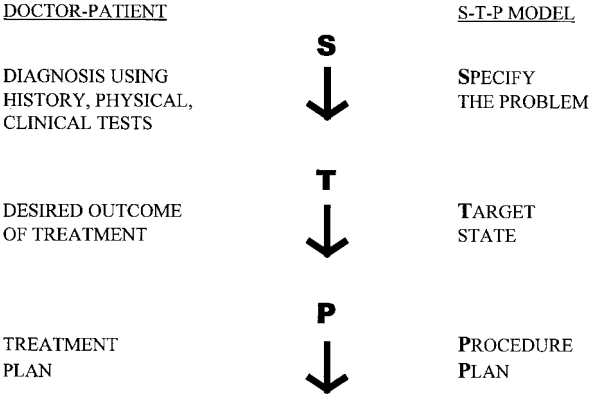

Figure 1. *S-T-P model parallels with the doctor–patient relationship.*

Step 1: Specify the problem (S). Once the preceptor recognizes or suspects that a learner's academic performance is below potential, the preceptor should start asking why academic performance is below potential, what is the existing situation, and what is wrong with the way things are now. When specifying the problem, the preceptor should try to identify if the problem learner has an affective, cognitive, structural, or interpersonal difficulty, or some combination thereof. Identifying the class of the learning problem is helpful for the action-planning phase (Step 3).

When attempting to specify the problem, the preceptor may want to meet with the problem learner and engage in a mutual feedback session that encourages the learner to do a self-assessment in an attempt to identify the problem as well as point out the preceptor's possible role in the problem. If the learner is not capable of self-assessment or does not raise an issue related to the problem as perceived by the preceptor, it will be up to the preceptor to give effective feedback that is relevant to the problem.[12,13] During this feedback session, some questions the preceptor should address include (a) "How may I as a preceptor be contributing to this situation?," (b) "Does this learner have similar learning problems across settings?," and (c) "In what ways does the present situation fall short of expectations?" Step 1 should be seen as an information-gathering stage where as much detail as possible about the problem learner is obtained.

Example:

The preceptor has noticed a student, John, who rarely contributes to the discussion, and, when engaged directly, is hesitant and ambiguous. John seems disinterested in the discussions during rounds, and patients have complained that this student "doesn't tell me anything" and "doesn't seem to know what's going on." During

step one, the preceptor should examine with John (a) what teacher–preceptor characteristics might be causing or contributing to this reaction (e.g., too authoritative, reputation for severity and humiliating the learner); (b) what student traits might be contributing (e.g., shyness, introspective personality, second thoughts about career choice, burn-out, stress from information overload inherent in medicine, or lack of knowledge); (c) how these factors are apparently negatively influencing the outcome (e.g., patient's loss of confidence in their student doctor, apparent disinterest in rounds, amount of time used probing for information from the learner); and (d) whether these learner characteristics are seen in other settings such as the learner's interpersonal interactions and previous educational settings.

Questions asked during Step 1 parallel the history of the present illness, physical examination, and use of clinical tests in a doctor–patient interaction as a patient's symptoms are being explored to develop a diagnostic evaluation plan and differential diagnosis: What are the patient's symptoms? What makes the symptoms better or worse? What environmental factors may affect the symptoms? What tests are necessary to confirm the diagnosis?

Step 2: Desired target state (T). During this stage, the goal is for the preceptor and the learner to envision an ideal state with regard to the problem identified in Step 1. This stage should be marked by collaboration and generation of ideas. Some target states that are generated may even be unrealistic. The overall idea is to ask what would improve the current situation and what is the desired goal of managing the learning problem.

Example:

The preceptor meets with John for a brain-storming session of suggestions to improve the preceptor–learner interactions and learner–patient interactions. The preceptor should probe with questions such as (a) "What would make your patients have more confidence in you?," (b) "What would improve my perceptions of your interest and commitment to your patients?," (c) "How can you improve your knowledge base?," and (d) "What can we do in general to improve the learning situation for you without making you uncomfortable?" During this step, a list of possible ideas that would improve the learning situation should be generated.

Questions asked during Step 2 parallel the doctor and patient considering goals of therapy and mutually desired outcomes in response to different treatment options in the ill patient after the diagnosis has been made. What medications or other therapies are most likely to effect a cure? What treatment will prevent recurrence of the illness? What is the expected outcome from the treatment–palliation versus cure? If only palliative therapy is available, how will that therapy improve the patient's quality of life?

Step 3: Procedure, plan, or path to get from S to T (P). This is the active planning phase of the S-T-P model designed to move the problem learner from Step 1 (the problem) to Step 2 (the target state). Questions to consider during this step are: What would the preceptor like to do to improve things? What actions will move the learner toward the target state? During Step 3, the preceptor has to make difficult decisions about how to help the learner reach the target state. The preceptor may need to make the decision to refer the learner with significant affective or interpersonal problems to a counselor, therapist, or service that addresses their specific problem (e.g., a learner with very low self-esteem or a learner with a significant substance-abuse problem). Another possibility is that the preceptor may want to call a consultant for suggestions in the management of the problem learner. Consultants in the areas of adult learning, neuropsychology, clinical psychology, or psychiatry all could provide expertise in the assessment and intervention of a problem learner who may thrive with a sound management plan and close monitoring by both consultant and preceptor (e.g., a learner with poor social skills, a learner who is unable to focus on important issues for physiological reasons, a learner who is shy or nonassertive, a learner who is clinically depressed). For persistent cognitive problems, a formal learning disability evaluation should be considered. If the problem with the learner is less serious (Type II or Type IV; e.g., learners who are too informal, disinterested, or overeager), the preceptor may be able to manage the learner without outside help. If so, there should be mutual collaboration among the preceptor, the learner, and perhaps the program director to address and work through the problem. Regardless of the decision about the plan to get from S to T, it is crucial for the preceptor to develop plans for follow-up with the learner. Follow-up could be achieved through regular meetings with feedback about and evaluation of the problem.

Example:

Together, John and the preceptor develop a plan to improve the student's performance during rounds and interaction with his patients. Examples might include: (a) the preceptor requesting that John expand in writing the differential diagnosis and treatment plan sections of the medical record using references; (b) consider a referral for counseling on improving interaction skills (e.g., need

for assertiveness, feelings of inadequacy) or career counseling; (c) consider one-on-one sessions between the preceptor and John, which may make the learner more comfortable with the preceptor and more receptive to receiving feedback from the preceptor; (d) consider a leave of absence; (e) provide John the opportunity to observe the preceptor in patient interactions (preceptor role modeling); and (f) consult a psychologist for suggestions in working with the learner.

This final stage of problem solving with the problem learner parallels the treatment process itself in the management of the patient's illness. Which medication or other therapy promises the best outcome with the least side effects? How will the treatment be monitored? What is the standard therapy for this illness? Will a consultant be needed? How will the patient be monitored and assessed over time?

Faculty Development in Managing the Problem Learner

To understand and practice the S-T-P model, preceptors can participate in workshops that enable them to recognize problem learners early, diagnose the degree and type of problem, and practice approaches to deal with these learners.[10] It is helpful during these workshops to utilize role plays with standardized students.[5] Role play and the use of standardized patients allow practice of the S-T-P model in a comfortable setting with colleagues. Table 2 contains some examples of role-play scenarios that we have used successfully in workshops.

Training preceptors to manage problem learners with the S-T-P model is an instructional exercise in which teachers are educated about recognizing problem learners and improving their confidence in identifying and assisting these students. The S-T-P model is a set of guidelines that one should consider when dealing with the problem learner. Preceptors may need to revisit some of the steps of the model depending on the receptiveness of the learner. Table 3 offers hints to optimize problem solving with the problem learner in the medical setting using the S-T-P model.

Conclusions

Considerations of the problem learner may suggest curricular changes in residency programs and medical schools including screening procedures during the admission process.[10] Changes in evaluations with more emphasis on peer evaluation and self-evaluation may increase awareness about problem learners or potential learning problems at an earlier stage of education. Institutions may want to consider a formal mentoring

Table 2. ***Sample Workshop Role Plays: The Problem Learner***

Role Play	Learner	Preceptor
1	You are a 2nd-year resident and a very insecure person who needs to be liked. You have difficulty dealing with authority figures. You compensate by being ingratiating.	You are working with a PL–II resident who is always smiling and hanging on your every word. He tells you that your knowledge of medicine and clinical acumen is excellent (at least twice a day!). You feel a need to "brush him aside," but he seems to be all over you.
2	You are a 1st-year resident who never learned to be an independent learner. You are used to a very didactic teaching style from medical school and don't know how to do independent reading or research and are completely at a loss as to how to proceed. You rely on your preceptor for all of the answers.	You are working with a 1st-year resident who attends regularly, appears to do her work well, but asks a lot of detailed questions about each case. When asked to pursue a particular topic, she never reports back or indicates that she has completed the task. In addition, she does not seem to read on her own initiative.
3	You are a resident with a substance abuse problem. You have excessive work absence, irritability, and poor work performance.	A senior resident has missed at least two clinics per week during the past month. This resident has called in several times claiming not to feel well. At work the resident appears to be irritable and distractible.

Table 3. ***Hints for the Teacher to Manage the Problem Learner Successfully***

Consider difficulties with the learning process in terms of a possible problem learner. (Do not just assume the student is stressed and the problem is temporary.)
Communicate with and provide feedback to the problem learner in order to increase understanding of the problem.
Know when to seek outside help (e.g., referral to a counselor or consultation with the program director).
Know your limitations.
Identify the problem early.
Think of students or residents with learning problems in the same way you think of patients with illnesses—in terms of diagnosis, desired outcome, treatment options, and treatment plan.
Work in collaboration with the student or resident, emphasizing peer- and self-evaluation.
Monitor progress through communication, regular feedback, and formal and informal evaluations.

program where each resident or student is paired with a faculty mentor throughout their program.[5,14] Such a program would allow early assessment of problem learners, help with adjustment and transition (which may prevent some learning problems such as the affective class of problems), and provide interaction, role modeling, and advice from a professional in the field.

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