

# Self-Directed Professional Development: The Pursuit of Affective Learning

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The inconsistent professional socialization of students is a growing concern among pharmacy educators. Numerous commission reports highlight the need for curricular reform designed to inculcate strong professional values. Student-centered learning methods aimed at developing affective skills need to be integrated into the predominantly cognitive teaching practices that currently exist. A “self-directed professional development” (SPD) program was established that included three elements: (i) patient medication advocacy that promotes a service-oriented covenant between students and patients; (ii) self-directed learning that prompts students to take responsibility for their own professional growth and develop lifelong learning habits; and (iii) effective time management that provides students with the tools and motivation to manage multiple tasks. SPD was implemented in a six-week internal medicine rotation. Results after eight rotations demonstrated the benefit of values-based, affective teaching methods. This program focused exclusively on an experiential training environment, but every component of a pharmacy curriculum should emphasize the development of sound professional values.

## INTRODUCTION: A PROFESSION IN SEARCH OF PROFESSIONALISM

During the past decade, pharmacy educators have become increasingly aware of the need to focus on values that foster professionalism. The AACP Argus Commission reported in 1991 that many pharmacists lack pride in their profession and do not hold their professional self-worth in high regard(1). The Commission further stated that pharmacy educators bear a responsibility to instill in students a clear sense of the profession’s societal purpose and to encourage each student to develop a personal practice philosophy. The 1993 report “Health Professions Education for the Future: Schools in Service to the Nation” of the PEW Health Professions Commission, emphasized a need for education that centers on a clear set of professional values(2,3). In 1998, the Advisory Panel on Educational Outcomes of the AACP Center for the Advancement of Pharmaceutical Education reconvened to revise the guidelines that it originally developed in 1994(4). These outcomes were

intended to guide faculty and administrators in assessing and revising pharmacy curricula. Among the educational objectives listed were, “Display the attitudes, habits and values required to render pharmaceutical care,” and “Self-assess learning needs and design, implement, and evaluate strategies to promote intellectual growth and continued professional competence.” In 2000, the White Paper on Pharmacy Student Professionalism culminated a five-year effort by the APhA Academy of Students of Pharmacy—AACP Council of Deans Task Force on Professionalism(5). This report emphasized that pharmacy students should be guided to pursue two parallel tracks of accountability: to assume greater responsibility for patient care, and to assume greater responsibility for their own professional development.

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## **Impact of Pharmacy's Identity Crisis on Professional Socialization**

The White Paper on Pharmacy Student Professionalism also explores the concept of "inconsistent socialization," as originally described by Manasse, *et al.*(6). Professional socialization refers to the process by which entrants into a profession acquire the attitudes, values, skills and knowledge that are characteristic of the profession(7). However, a profession that is characterized by conflicting ideologies does not provide a consistent, uniform identity upon which to base professional attitudes(6). The professional socialization of pharmacy students is undermined by the ongoing dichotomy that exists between the professional and mercantile aspects of pharmacy(5,8). Many students find themselves increasingly disillusioned and disappointed with pharmacy as a career. They see the highly-professional pharmaceutical care model of practice for which they have been preparing, in stark contrast to the technical, product-oriented, distributive practice that awaits many upon graduation. This uneasy balance between the professional and business functions of pharmacy has generated conflict and ambiguity among pharmacy practitioners since the earliest days of the "clinical pharmacy" movement(8). Despite a continually shifting emphasis from product distribution to pharmaceutical care, the pendulum has yet to swing far enough to provide students with a consistent vision of pharmacy practice, one that can serve as a framework upon which to build a solid set of professional values.

As the 1991 Argus Commission highlighted, pharmacy practitioners and educators share in the responsibility to raise the level of professionalism in pharmacy(1). Nurturing strong professional values in students as they progress through the pharmacy curriculum is no easy task. Some studies have shown that students' beliefs about professionalism do not significantly improve during pharmacy school and that the process of professional socialization is incomplete(9,10). Other studies suggest that professional attitudes deteriorate during pharmacy school, despite faculty efforts to the contrary, and students tend to become more cynical and disillusioned about pharmacy as graduation approaches(11,12).

## **Cognitive versus Affective Learning in Pharmacy and Medical Schools**

Pharmacy is not alone in facing professional socialization challenges within its training programs. Medical schools face the same dilemma(13). Efforts to inculcate professional values in trainees are often overshadowed by the necessity of having to master complex skills and commit volumes of information to memory. It is not surprising, therefore, that professionalism has historically taken a back seat to the cognitive learning that dominates most physician and pharmacist training programs(14,15).

The emphasis on the cognitive domain of learning causes faculty to overlook the importance of the affective domain, which deals with the emotions, feelings, and values that shape one's behavior. Affective characteristics such as motivation, initiative, compassion, service, accountability, empathy, honesty, advocacy, commitment, optimism, respect, and self-confidence, lead to behaviors that typically produce professional excellence(16). In 1993, the AACP Commission to Implement Change in Pharmaceutical Education identified six categories of competency-based educational outcomes that are critical to professional development, most of which are heavily oriented toward the affective domain(17). These include values and eth-

ical principles, personal awareness and social responsibility, self-learning abilities and habits, and social interaction and citizenship.

Learning within the affective domain is not well suited to the conventional methods of didactic instruction that reliably produce cognitive development. In contrast, the affective traits that are associated with strong professional attitudes generally evolve over time through repetitive reinforcement and conditioning. Krathwohl's taxonomy of the affective domain describes the typical evolution of affective learning(16,18). The progression of a pharmacy student through the five levels of Krathwohl's taxonomy closely mirrors the process of professional socialization. The first level, receiving, is the ability to pay attention to specific stimuli, or for example, to be acutely aware of a patient's need for pharmaceutical care. The second level, responding, refers to a passive willingness to respond, and thus to derive satisfaction from providing pharmaceutical care. The next level, valuing, involves a progression from willingness to enthusiasm, in which the responsiveness to a pharmaceutical care need is seen as an important and worthwhile phenomenon. The fourth level, organization, involves establishing an integrated, internal system of values that collectively support the concept of pharmaceutical care. And lastly, the fifth level, characterization, describes the internalization of a guiding value system that produces a consistent life pattern of pharmaceutical care practices.

## **EXAMPLES OF EXISTING PROFESSIONALISM TRAINING PROGRAMS**

Academia has begun to respond to the call for an increased focus on professional socialization. A variety of innovative programs have been developed in schools of pharmacy to address this challenge. Chances for success appear to be greatest when programs integrate professional socialization activities throughout the entire curriculum.

The American Council of Pharmaceutical Education has mandated that pharmacy schools incorporate introductory practice experiences early in the curriculum. Such activities afford students a direct exposure to the application of professional responsibilities, as demonstrated by competent practitioners. At Auburn University, Beck and colleagues developed recommendations to assist educators in meeting the educational goals of introductory practice experiences(19). They suggested that pharmaceutical care should be a cornerstone of any professionalization experience, and that shadowing, by itself, is an inadequate method for effectively socializing students. Thomas and colleagues, also at Auburn University, implemented a self-directed, two-year, continuous pharmacy practice experience as a means to professionally socialize students(20). They were not able to demonstrate a significant change in student attitudes toward professionalism, though an insufficient sample size might have contributed to the lack of a positive outcome.

The University of Colorado has developed a two-week pre-professional socialization course that culminates with a "white coat ceremony." The course consists of active learning assignments and team exercises that cover topics ranging from pharmacist responsibilities to time management(21). Successful completion is required before students can officially enter the professional program. In addition, a longitudinal professional skills development sequence has been horizontally integrated with other courses in the curriculum to provide an omnipresent focus on professionalization(22). All courses in

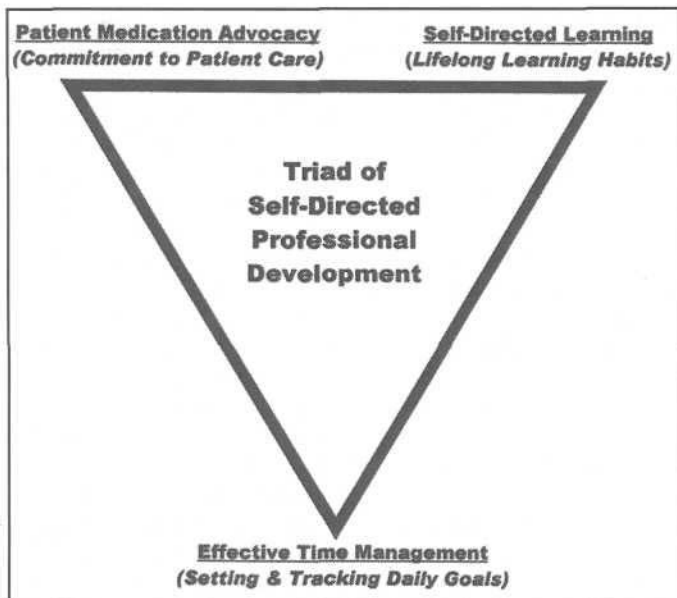


Fig. 1. An illustration of the three elements of Self-Directed Professional Development.

the series are ability-based with an emphasis on active learning. Faculty utilize the Behavioral Professionalism Assessment Form to assess professional growth(23).

At the University of the Pacific, several programs have been implemented to enhance student professionalism. These include an introductory orientation course, internet pharmacist mentor program, pharmacy showcase participation, individual cyber-patient interaction, and a poster presentation project. These programs are introduced at various times throughout the curriculum, to ensure a consistent emphasis on professional socialization(24-26).

## IDENTIFYING THE ELEMENTS OF SELF-DIRECTED PROFESSIONAL DEVELOPMENT

Comprehensive descriptions of professional attributes have been published elsewhere, as have the key steps to achieving professional socialization(5,7,8,19). Two widely-acknowledged characteristics of pharmacy professionalism are patient advocacy and lifelong learning. The Code of Ethics for Pharmacists, adopted by APhA in 1994, lists eight ethics, including: "A pharmacist respects the covenantal relationship between the patient and the pharmacist" and "A pharmacist maintains professional competence."(27) The Oath of a Pharmacist, adopted by APhA-ASP and the AACP Council of Deans Task Force on Professionalism, includes the following among its five vows: "I will consider the welfare of humanity and relief of human suffering my primary concerns" and "I will keep abreast of developments and maintain professional competency in my profession" (5).

The purpose of this project was to develop a systematic teaching method that would foster self-directed learning and promote pharmaceutical care. It was also important to achieve these goals without sacrificing the standard learning objectives that were designed to improve the students' clinical knowledge, communication skills, and critical thinking capacities. The primary challenges of self-directed professional development were to shift learning responsibility from the preceptor to the student and to enhance each student's concept of pharmaceutical care as a professional covenant between pharmacist and patient. Recognizing that some students might become

overwhelmed by the increased responsibilities being placed upon them, a third goal, effective time management, was included to support the pursuit of the first two goals. Together, these three goals formed a triad that served as the foundation upon which to design new performance objectives and learning tools (Figure 1).

### 1. Patient Medication Advocacy (PMA)

The pharmaceutical care paradigm has the potential to serve as a unifying focus of professionalism among pharmacy practitioners. Pharmaceutical care cannot be achieved without a strong sense of patient advocacy and a value system deeply rooted in a service mentality(28). Patient advocacy shifts a pharmacist's focus away from the drug product and away from oneself, and centers it solely on patient well-being. The White Paper on Pharmacy Student Professionalism includes the statement, "Task Force members felt it should be the primary mission of pharmacy educators and practice mentors to inculcate pharmacy students with the attitudes and behaviors necessary to deliver pharmaceutical care."(5) Patient medication advocacy represents the essence of pharmaceutical care.

It is a misnomer to suggest that patient advocacy can only exist in advanced pharmacy practice settings or can only be accomplished by specially-trained practitioners. Advocacy comes from within, regardless of one's external circumstances. It is a mindset—a moral obligation on the part of the pharmacist to do what is best for the patient(29). Students can be mentored to develop a sense of patient care responsibility.

### 2. Self-Directed/Lifelong Learning

The heavy focus on factual, didactic learning in pharmacy (and medical) schools conditions students to passively depend upon highly-structured learning activities, rather than take responsibility for the active pursuit of their own professional growth. Students who have not previously been trained to guide their own learning find themselves ill-equipped after graduation to keep up with the rapidly-expanding pharmacy information base. It is an unfortunate reality of the profession that regardless of the level of knowledge and expertise gained in school, those pharmacists who do not commit to a value-system of personal growth and lifelong learning are destined to eventually become incompetent as practitioners of pharmaceutical care.

To paraphrase a biblical adage, "Teach students facts and you'll educate them for today. Guide students to learn on their own and you'll educate them for a lifetime." This concept is not fully appreciated by some faculty, especially those who have never been formally trained in educational theories or methods. It is natural for such faculty to rely on many of the same teaching methods that they encountered as students in pharmacy school. As a result, teacher-centered learning continues to be widely practiced in both didactic and experiential pharmacy training programs. For pharmaceutical care to become the practice norm in pharmacy, a more student-centered, self-directed learning model needs to be embraced by pharmacy educators and practice mentors(19). As patient advocates, students must be able to identify their own weaknesses, and hold themselves accountable to correct any deficiencies in knowledge that might prevent them from serving the pharmaceutical care needs of a patient.

### 3. Effective Time Management

Patient advocacy and self-directed learning are requisite to

achieving professionalism as a pharmacist. The third objective, time management, plays more of a supportive, albeit equally important role. Regardless of practice site, few pharmacists are afforded the luxury of leisurely going about their business. Pharmacy is a fast-paced profession, characterized by an ever-changing body of information, a wide-ranging array of responsibilities, and multiple workplace distractions. Pharmacists must be highly organized and efficient if they are to succeed in a modern pharmacy or health-system.

A recent survey of 597 Midwestern pharmacists found that community pharmacists engaged in an average of 141 personal interactions per day, and hospital pharmacists experienced an average of 76 interactions(30). This translates to approximately 10 to 20 interactions per hour, or one every three to six minutes. The study also showed that community pharmacists worked as the only pharmacist 72 percent of the time, compared to 31 percent of the time for hospital pharmacists. In between the frequent distractions, pharmacists must supervise computer data entry, analyze patient profiles, oversee drug preparation, check completed prescriptions, hand out medications, search for answers to drug information questions, track down prescribers, verify third-party coverage, and handle any miscellaneous problems that arise—in many cases while working as the only pharmacist on duty. The incessant multi-tasking required of today's pharmacists makes it imperative that they work efficiently, by planning daily routines, prioritizing tasks, setting limits, avoiding time-wasting activities, and pacing themselves(31). Standard time management techniques have been developed that can be readily adapted to any pharmacy setting(32). Students who lack such skill or fail to appreciate its value enter the pharmacy work force at a distinct disadvantage.

Empowering students to organize their work activities prepares them to function professionally in a hectic, sometimes chaotic environment. Such training enables them to experience the direct benefits of daily planning, and appreciate how prioritizing tasks can reduce stress while increasing productivity. In today's society, professionals who excel are invariably those who are well-organized. Pharmacy students should learn to prioritize and complete tasks systematically. With proper guidance and persistence, basic time management skills evolve into habitual behavior patterns.

## **IMPLEMENTATION OF SELF-DIRECTED PROFESSIONAL DEVELOPMENT**

Self-directed professional development was initiated by establishing a goal-tracking system for patient medication advocacy functions within the internal medicine advanced practice experience rotation at San Joaquin General Hospital. San Joaquin General is a 203-bed, county-owned teaching hospital that serves as an experiential training site for University of the Pacific. The six-week internal medicine rotation is conducted six times per year, with one pharmacist preceptor training three to five students per rotation.

### **PMA Goal Tracking**

To assist students in tracking specific tasks, a PMA Goal Tracking Form was developed (Appendix A). The form was designed to encourage students to identify and prioritize their own learning and pharmaceutical care goals, track their progress toward completing critical tasks, and reflect upon what they had learned. Students were expected to independently recognize their deficiencies in therapeutic or drug knowledge, and to determine actions that should be taken on

behalf of a patient. The goal tracking form allowed tasks to be recorded within six major categories: to improve drug knowledge, to improve therapeutics knowledge, to obtain patient-specific data, to intervene on behalf of a patient, to provide information to a patient or health professional, and to complete any assignments or projects.

Throughout the day, students recorded any task that needed to be completed. Each task was immediately prioritized using the following priority codes: 1 = must be done today, 2 = should be done today, 3 = could be done today. In this way, tasks were not only recorded in a well-organized manner, so as not to be forgotten, but were also prioritized, to ensure that the most important tasks were completed before tasks of lesser importance. This method placed the primary responsibility on students for identifying patient care and learning goals. They were expected to review the goal tracking form prior to leaving the hospital each day and to reconcile any tasks that remained to be completed. Outstanding tasks were transferred to the next day's form. At the end of the day, students reflected on their experiences and documented the most interesting drug and disease state facts they had learned, along with the most significant action that they had taken on behalf of a patient.

Goal tracking responsibilities were introduced to students during the second week of the rotation. It was felt that during the first week, while most students were struggling to fit in with their medical teams, it would be difficult to focus on setting their own learning objectives. By week two, after settling into the rotation, they were more receptive to incorporating time management functions into their daily routines. The preceptor spent about 15 minutes discussing the rationale behind "day planning" activities and the value of recording, prioritizing and tracking daily tasks. Once students understood the importance of effectively organizing their daily activities, 25-30 minutes were spent describing the mechanics of time management and explaining in detail how to use the PMA Goal Tracking Form. As an additional aide, students were given a handout that contained 10 guidelines on how to properly use the form (Appendix B).

Preceptors collected and reviewed PMA goal tracking forms daily, to monitor student progress and provide feedback. Close supervision and guidance were deemed necessary, to ensure not only that students completed the form daily, but also that it was being utilized effectively. There was concern that some students might use the form as a documentation tool rather than a planning tool. The objective was to plan and track tasks prospectively, not to retrospectively record tasks that had already been completed.

### **PMA Care Plan**

The PMA Care Plan (Appendix C) was a modification of a traditional SOAP format. Whereas the PMA Goal Tracking Form was primarily a time management tool, the PMA Care Plan served as more of a patient advocacy guide. It enabled students to easily organize patient-specific data, key monitoring parameters, assessments of current therapy, and new therapeutic plans. Anecdotal evidence suggests that advanced practice experience students typically do well collecting and analyzing patient data, and reiterating a physician's plan. However, in order to promote patient advocacy, students should also be encouraged to develop their own action plan of pharmaceutical care, apart from the therapeutic plan of the medical team. When completing the PMA Care Plan, they were expected to identify pharmaceutical care issues for which they would take

**Table I. Students' assessment of the impact of self-directed learning activities on professional growth.**

<b>Learning activity</b>	<b>Not helpful</b>	<b>Slightly helpful</b>	<b>Moderately helpful</b>	<b>Extremely helpful</b>
Tracking Daily Goals	5 (17%)	7 (23%)	11 (37%)	7 (23%)
Patient Monitoring	0 (0%)	0 (0%)	7 (23%)	23 (77%)
Daily Reflection	3 (10%)	5 (17%)	12 (40%)	10(33%)

Results compiled from 30 students over eight rotations.

personal responsibility to ensure resolution. For this reason, a separate section at the bottom of the PMA Care Plan was created for students to record any actions that they specifically intended to take on behalf of a patient, as well as any outcomes that resulted from those actions. PMA Care Plans were screened by a preceptor during daily patient-care discussion sessions. Students were forced to critically evaluate advocacy opportunities by being asked, "What are you going to do for this patient?" The forms were also collected for comprehensive review and commentary by a preceptor at least three times during the rotation.

The PMA Goal Tracking Form and the PMA Care Plan were designed to make the student an accountable participant in the educational planning process, while shifting the preceptor's role toward more of a guide and a resource. To provide an incentive for students to actively engage in self-directed learning, their performances in utilizing these forms were assigned grades, which were then reflected in final rotation grades.

## **RESULTS: STUDENT PERFORMANCE AND REACTION**

Self-directed professional development was incorporated into this internal medicine rotation for over a year. At the end of each rotation, students were asked to provide feedback by completing a written evaluation. They ranked the impact of various assignments and activities on their professional growth using a four-part scale that offered the following choices: not helpful, *slightly* helpful, moderately helpful, and extremely helpful.

Responses were obtained from 30 students over eight rotations. Results are listed in Table I. Eighteen of the students (60 percent) found the process of prioritizing and tracking goals to be at least moderately helpful to their professional growth. Twenty-two students (73 percent) expressed that daily reflection of what they had learned was at least moderately beneficial. All 30 students indicated that daily patient monitoring had a positive effect on their development as pharmacists.

Students were also asked to identify activities that might help them to grow professionally. Seven students (23 percent) identified PMA goal tracking for its impact on improving organization skills, and one student listed patient medication advocacy as a skill that would promote future professional growth. Verbal feedback from students generally acknowledged the value of the PMA Goal Tracking Form as an effective time management tool, particularly on such a demanding rotation.

Based on subjective preceptor observations, the majority of students who participated in the self-directed professional development exercises showed some degree of professional growth. Most students appeared to progress through the first few levels of Krathwohl's taxonomy of the affective domain (receiving, responding and valuing), primarily in regard to self-directed learning. Very few students appeared to reach the two highest levels, organization and characterization.

Affective growth in the area of patient advocacy was not

easily identified, even at the lower levels of Krathwohl's taxonomy, though most students seemed to enjoy monitoring patients and interacting with medical teams. It was difficult to discern whether students were motivated by a desire to meet academic performance requirements or by a sense of advocacy for the patients being served.

## **DISCUSSION: PRECEPTOR INSIGHTS**

Attempts to influence the affective domain and promote self-directed professional growth, as described in this report, were met with modest success. However, for a mere six-week exposure, even modest success is encouraging. If values such as patient advocacy, lifelong learning, and effective time management had been emphasized throughout all practice experience rotations, the effect on students' professional development probably would have been more significant, and progress through all five levels of Krathwohl's taxonomy might have been achieved.

### **Insights into Self-Directed Learning and Time Management**

The practice of recording daily tasks and setting daily goals was unfamiliar to the majority of pharmacy students at the beginning of the rotation. Students needed constant reminders to document new tasks that arose throughout the day and to see each task through to completion. After several days of repetitive coaxing and reinforcement from a preceptor, most students were able to independently identify their learning needs.

Some students resisted self-directed learning and did not appreciate the value of time management. They found the PMA Goal Tracking Form to be intimidating, were less likely to use it consistently, and seemed to record tasks retrospectively in an apparent attempt to appease the preceptor. Based on student feedback, the PMA Goal Tracking Form has undergone a series of modifications, the latest of which is shown in Appendix A. The form has also been adapted for use in other advanced practice experience rotations, including hospital practice, ambulatory care and psychopharmacy.

### **Insights into Patient Advocacy**

The PMA Care Plan emphasized patient medication advocacy as a crucial element in the pharmaceutical care process. Patient advocacy seemed to be a foreign concept to many pharmacy students at the start of the rotation. They were more comfortable functioning as passive observers of patient care rather than active practitioners. Despite an intense focus on PMA, it remained a general area of weakness for many students. Although patient monitoring skills tended to improve during the rotation, students' efforts at meaningful clinical interventions remained secondary to their quest for satisfactory completion of academic requirements. Preceptors suspected that student motivation to engage in patient care activities stemmed more from a desire to achieve suitable grades than from an altruistic calling to serve the pharmaceutical needs of patients.

It was apparent that students adapted to self-directed learning far more readily than to patient medication advocacy. Advocacy appears to be an affective trait that is slow to develop in people who do not already possess a service-oriented value system. Within the time constraints of one six-week rotation, students were able to sporadically identify, appreciate and apply new professional values, but were not able to internalize those values into consistent patterns of professional behavior.

### CONCLUSION: THE ELUSIVE AFFECTIVE DOMAIN

Engendering professionalism within the pharmacy profession is a daunting challenge, for which obstacles are many and solutions are few. Difficulties associated with professionally socializing students are compounded by the conflicting dichotomy that exists between the professional and business identities of pharmacy. It is understandable that students might find their perceptions of the pharmacy profession to be inconsistent and confusing.

Pharmacy educators are beginning to realize that some traditional teaching methods not only fail to foster professional socialization, but might even be impeding the process. Students and faculty have become habituated to a teacher-centered educational system that heavily emphasizes cognitive skills, yet professional behavior patterns result from one's values, beliefs, feelings and interpersonal skills, not one's ability to recall facts or analyze data. Affective traits are as important as knowledge and skill to the success of future pharmacists. Those engaged in the single-minded pursuit of intellectual development are prone to overlook the fact that knowledge is of little value unless properly applied. It is the effective application of knowledge, not the knowledge itself, that defines the importance of professionals to the society they serve.

### Student-Centered Affective Learning: A New Path to Professionalism

A shift in emphasis toward affective learning will require some faculty to venture beyond the security of their academic comfort zones, as they are called upon to nurture, not just lecture, and guide rather than instruct. Whether in the classroom or practice setting, one should not assume that the shift from teacher-centered to student-centered learning occurs as a natural transformation. To the contrary, teaching facts is a relatively easy process and provides an immediate sense of accomplishment for the teacher. Knowledge can be conveyed quickly and easily, but guiding a student to develop professional values is a painstaking process that does not typically bear rapid results. Truly successful teaching exerts a long-term impact, providing not only knowledge, but the will to use it and the insight to use it wisely.

Professional socialization strategies that emphasize affective growth, such as the self-directed professional development program described herein, should be integrated as a constant theme throughout the curriculum, from matriculation through graduation. It is a journey upon which many pharmacy schools have already embarked. Initial attempts thus far reported in the literature constitute a promising first step, but improving the professional socialization of pharmacy students warrants being a priority of the highest order in pharmacy schools across the country (28). The development of strong professional values cannot be left to chance.

### The Ultimate Academic Challenge: Lighting a Fire

The essence of the academic dilemma between affective and cognitive teaching methodologies was best captured

metaphorically in the words of William Butler Yeats, "Education is not the filling of a pail, but the lighting of a fire." Perhaps pharmacy educators have devoted too much effort to filling the pail and not enough to lighting the fire. Professionalism cannot be taught; it must be carefully nurtured. Such nurturing is difficult to accomplish within the framework of traditional methods of instruction. The great challenge now facing the pharmacy academic community is to ignite the affective fires of professionalism in every student. That challenge cannot be met with the same educational tools that have been relied upon in the past to fill pails of knowledge. The profession of pharmacy is in dire need of creative new teaching methods designed to generate spontaneous combustion within the minds of future practitioners.

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What's the most significant action you took TODAY on behalf of a patient?

**Priority codes:**

1 = must do today, 2 = should do today, 3 = could do today

Status: √ = completed, => = in progress

**APPENDIX B. STUDENT GUIDELINES FOR GOAL TRACKING AND TIME MANAGEMENT**

**Ten Guidelines for Effective PMA Goal Setting/Tracking**

1. Carry the PMA form with you at all times; add to it throughout the day. It's a tool that's designed to help you identify and organize any tasks that you need to complete, in order to function optimally as an advocate for your patients. It can also be very useful in managing the many assignments that are required of you. Being organized and systematic in getting things done will not only increase your productivity, but will also greatly reduce your stress over the next six weeks.
2. Any important PMA or rotation activity that cannot be done immediately should be recorded on the PMA form right away and prioritized. The purpose of the form is to guide you in the completion of tasks that you need to do in the future. Do not record tasks that you've already completed or that you are about to do.
3. Record only specific tasks, not general responsibilities that are part of your daily routine. For example: ("Check Mr. Jones' digoxin level", not "Monitor patients") or ("Read about ACE-I induced cough," not "Read about drugs") or ("Tell Dr. Smith about Baycol side effects on rounds tomorrow," not "Go on rounds with my team")
4. When you have time to complete a task, refer to your PMA form and select the highest priority item, then do it. Do the 1's before the 2's and the 2's before the 3's.
5. As tasks are completed, check them off on your PMA form.
6. Have your PMA form handy when you are on rounds and when you are meeting with a preceptor. Use it to record anything that comes up that you need to investigate, look up, review, or follow-through on.
7. Review your PMA form before leaving the hospital. Decide what should still be done before you leave, what can be done at home that night, and what can wait until the next day. If there are any tasks that you no longer plan to complete, cross them off your list.
8. Review the previous day's PMA form right away when you first arrive each day at the hospital. Transfer any "in progress" or "to be completed" tasks onto a new PMA form at the start of the day.
9. At the end of the day, take a moment to reflect about any specific facts or concepts that you've learned—things that you know now but didn't know yesterday. At the bottom of the PMA form, record one major disease-related fact and one major drug-related fact that you learned TODAY. Just write down a brief description of the topic, not a detailed explanation. Also document an action that you took TODAY on behalf of one of your patients. If you didn't learn anything, and you didn't do anything to help a patient, you might want to reflect about other career options.
10. Goal tracking only works well if you keep up with it constantly. It's like breathing. You can't go without it for a couple of days and then catch up with a sudden flurry of vigorous activity. It needs to be done continually, little by little, on an ongoing basis. The time management principles upon which this system is based are well-founded, but will be of little help to you without your active participation in the process.

**APPENDIX A. CONDENSED VERSION OF A PMA GOAL TRACKING FORM**

**SJGH Pharmacy  
PMA Goal Tracking Form**

Name \_\_\_\_\_ Date \_\_\_\_\_

Advocacy Goals (Tasks to be Done)      Priority      Status  
To Improve My Drug Knowledge:  
(*mechanism, dosing, ADR, monitoring, DDI*)

To Improve My Therapeutics Knowledge:  
(*pathophysiology, therapy, monitoring*)

To Obtain Patient-Specific Data:  
(*labs, PE, medication Hx, allergy Hx*)

To Intervene on Behalf of a Patient:  
(*ask MD about dose; add/DC drug; order lab*)

To Counsel a Patient or Provide  
Information to a RN, MD or RPh)

To Complete Miscellaneous Tasks:  
(*assignments, projects, studying, reading*)

**Daily Reflection:**

What's the most interesting fact you learned TODAY about a drug or therapy?

What's the most interesting fact you learned TODAY about a disease state?

**APPENDIX C. CONDENSED VERSION OF A PMA CARE PLAN**

**SJGH Pharmacy  
PMA Care Plan (SOAP Guide)**

Patient \_\_\_\_\_ Unit/Room: \_\_\_\_\_ Completed by: \_\_\_\_\_  
 Date Started: \_\_\_\_\_ Dates Updated: \_\_\_\_\_

Problem List	Key monitoring parameters	Subjective and objective data	Goals of therapy	Current therapy	Assessment of patient therapy (Suggestions for improvement)	Needed follow-up (List in action plan below)
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**Post-SOAP PMA action plan**

<u>Action item</u>	<u>Specific Action That YOU Will Take</u>	<u>Outcome</u>
Suggest lab or test to be ordered or check results of lab or test		
Suggest modification of drug regimen		
Report ADR, or provide information to patient, RN, MD or RPh		