

An Overview of Admission Processes for Medical, Dental, Pharmacy, Physical Therapy, and Physician Assistant Programs

Carol L. Elam, University of Kentucky College of Medicine

Daniel C. Seaver, University of Kentucky College of Dentistry

Peter N. Berres, University of Kentucky College of Allied Health Professions

Barbara F. Brandt, University of Minnesota Academic Health Center

Advisors commonly meet with students interested in pursuing a career in a health profession. This paper addresses the admission processes used by medical, dental, pharmacy, physical therapy, and physician assistant programs. Advice on helping students gather information about the professions, seek health-related experience, and prepare academically competitive portfolios is presented. Admission procedures across the health professions are discussed, including the application timelines, as well as institutional use of standardized tests, interviews, and letters of evaluation to make selection decisions. By being better informed about the admissions process in the health professions, advisors can assist students in planning their undergraduate educational experiences.

Many students enter advisors' offices with dreams of becoming health care providers. Some know they want to be physicians or pharmacists. Some students would like to learn more about the jobs of dentists or physician assistants. Others think they want to enter a diverse field, such as sports medicine, and need to explore the specific type of work they might enjoy. They might discover for the first time that while trainers, physical therapists, and orthopedic surgeons all deal with injuries as participants of a sports medicine team, each has different patient care responsibilities, and each has received different education and training. Students need to learn the similarities and differences in roles, responsibilities, and professional and personal challenges across health care fields. Because their career goals are still in the formation stage, many students who express early interest in health care careers would benefit from information about a number of health professions.

The pre-health professions advisor is a pivotal resource for providing accurate information and reliable assistance to students seeking health professions careers. Our goal in presenting this article is to provide both advisors and students with general information that will be of use to them as they set personal goals and plan educational programs of study. We outline the academic and nonacademic

preparation and admission processes of medicine, dentistry, pharmacy, physical therapy, and physician assistant programs. Table 1 presents a summary of the basic admission requirements for these five health professions programs. We will discuss the role of undergraduate advisors in helping students prepare for a health professions education. We will also present issues related to standardized tests, letters of evaluation, and admission interviews and explain how health professions admissions committees use the information obtained through these venues in making selection decisions.

Medical School Admission

To make sure they are well suited for the profession, students interested in pursuing a medical career should first learn about the day-to-day life of physicians, including the breadth of their patient care responsibilities, work hours, challenges, stresses, and joys. To gain such insight, prospective applicants should talk to physicians about their experiences in the medical field, shadow them in the office or at the hospital, or volunteer in a health care facility. Furthermore, prospective applicants should recognize that highly diverse opportunities are available in medical careers. While most students pursue patient care opportunities in a medical specialty, others become medical researchers, teachers, or administrators of medical services.

Potential applicants must first recognize that alternate routes lead to medical school. Most medical school admissions officers expect that applicants will complete their baccalaureate degrees prior to matriculation into 4-year doctor of medicine programs. However, a small number of U.S. medical schools offer programs for high school graduates that combine undergraduate college study and medical education into a B.A.- or B.S.-M.D. degree (Varner, 1999).

When undergraduate students prepare for application to medical school, they should be aware that medical school requirements usually include one year of biology, general chemistry, organic chemistry, and physics with laboratory experiences, and one year of English composition and literature or

Table 1 A comparison of admission requirements and processes across five health professions

	Prerequisite Course Work	Exposure to Profession	Standardized Tests	Application Process	Application Time Frame	Letters of Evaluation	Interviews
Medicine	biology English general chemistry organic chemistry physics	expected	Medical College Admission Test (MCAT)	American Medical College Application Service (AMCAS)	as early as June 1 for admission the following year	required	required by over 95% of medical schools
Dentistry	biology general chemistry organic chemistry physics English	expected	Dental Admission Test (DAT)	American Association Dental Schools Application Service (AADSAS)	as early as of June 1 for admission the following year	required	required by over 90% of dental schools
Pharmacy	not standardized across pharmacy schools	desirable	Pharmacy College Admission Test (PCAT)	apply to each school separately	varies by program	required	required by 60% of pharmacy schools
Physical Therapy	biology general chemistry physics	expected	Graduate Record Examination (GRE)	apply to each school separately	varies by program	required	most require
Physician Assistant	biology (microbiology) general chemistry human anatomy & physiology	expected	Scholastic Aptitude Test (SAT), American College Test (ACT), Allied Health Professions Admission Test (AHPAT), &/or GRE	apply to each school separately	varies by program	required	most require

Note. General guidelines provided. Specific requirements will differ by program and by institution.

communication course work. In addition, some schools require course work in mathematics, biochemistry, and behavioral science.

Medical school admissions personnel do not specify the course of study that a prospective student should complete. Instead, they are concerned with the overall quality and rigor of undergraduate work and are looking for students with a breadth of knowledge, the desire to learn, and the inclination to understand and improve the human condition. While the majority of medical students have majored in science fields, degrees in these fields are not required. In fact, students from nonscience majors are encouraged to apply. Several studies have concluded that students from nonscience backgrounds have performed similarly to science majors in medical school and have chosen similar specialty areas as students from natural science backgrounds (Dickman, Sarnacki, Schimpfhauser, & Katz, 1980; Koenig, 1992). Through performance on the prerequisite course work, both science and nonscience majors display their abilities to understand and apply scientific principles.

As part of the admission requirements at most medical schools, students making applications must take the Medical College Admission Test (MCAT). The MCAT assesses mastery of basic concepts in biology, chemistry, and physics; facility with scientific problem solving and critical thinking; and writing skills. The MCAT is divided into four sections: biological sciences (biology and organic chemistry); physical sciences (physics and general chemistry); verbal reasoning (ability to read and critically analyze information); and writing sample (ability to write two essays to demonstrate skill at developing and synthesizing ideas) (Association of American Medical Colleges [AAMC], 1999). The MCAT is currently offered in April and August each year. Most admissions officers encourage applicants to take the MCAT in April of the junior year prior to submission of their medical school applications.

Because the application process generally takes 13 months, the junior year of college is a particularly important one for prospective applicants to medical schools. Students generally apply for medical school admission during the summer between their junior and senior year for positions in entering medical classes that begin in July or August following the senior year. Over 90% of medical schools in the United States participate in the American Medical College Application Service (AMCAS) program, run by the AAMC (Varner, 1999), that facilitates the application process. Students applying to AMCAS-participating schools submit one

application to AMCAS, and it is forwarded to medical schools designated by the student. As of 2002, the AMCAS application will include biographic information; a listing of colleges and universities attended; postsecondary experiences including honors and awards received, extracurricular community and avocational activities, and a postsecondary work history including volunteer, part-time, and full-time employment in various venues including the military and research settings; a personal comments section, and a practice vision essay, and a listing of all course work taken. AMCAS applications are generally available in April and can be submitted electronically to AMCAS in June. Application deadlines differ by institution, but most are generally in November or December.

In addition to the AMCAS application, most medical schools also invite selected students to forward a secondary application that requires submission of additional information related to the established selection criteria at that institution. Along with application materials submitted by the student, medical schools also consider letters of evaluation submitted from undergraduate faculty on candidates applying for admission. Admission officers and their committees screen all application materials to decide which candidates are most competitive for admission. At the majority of medical schools, the most qualified candidates are invited for interviews to discuss their qualifications for admission.

Dental School Admission

The dental profession is currently confronting significant external and internal challenges for the future. First, because of an aging population, dentists are treating a growing number of medically compromised patients and patients who have been prescribed multiple medications. Dentistry has taken on a greater level of medical sophistication that requires practitioners to have a better understanding of their patients' overall health (Sanders, 1996). Second, although the demand for dental care is increasing, the number of active dentists in practice is decreasing. In 2000, a high percentage of dentists were facing retirement in the subsequent 10 years, and dental schools are not graduating enough new dentists to meet the demand. Observation in private practice settings can help prospective applicants gain a better understanding of these and other challenges.

The professional education of dental students usually occurs over a 4-year period and begins after the completion of the baccalaureate degree. However, a few dental schools offer a combined

B.A.- or B.S.-D.D.S. or D.M.D. program (American Association of Dental Schools [AADS], 2000). For those students selecting to pursue an undergraduate education, dental school applicants generally undertake the same basic academic preparation as applicants to medical school. While specific course prerequisites will vary across institutions, admission committees at dental schools usually want students to complete course work in general biology, general chemistry, organic chemistry, and physics, each with labs. In addition, they suggest that students complete English courses with an emphasis on communication skills. Other science courses that well-qualified applicants may consider taking include anatomy, biochemistry, microbiology, immunology, genetics, cell biology, molecular biology, and physiology. In reviewing students' academic records, dental school admission committees also look for liberal arts courses that students have taken to enrich their education.

All U.S. dental schools require applicants to take the Dental Admission Test (DAT). The test is entirely multiple choice and consists of four separate examinations that cover natural sciences (biology, general chemistry, and organic chemistry), perceptual ability (two- and three-dimensional problem solving), reading comprehension (natural and basic sciences), and quantitative reasoning (AADS, 2000). The DAT is currently administered by computer at Sylvan Technology Test Centers throughout the United States. The DAT may be taken by appointment at any time during the year at 90-day intervals. Applicants are often advised to take the DAT two times, in spring of the junior year and late summer before the senior year, unless they have been told by dental school admission officers that their first scores are competitive for admission and scholarships. Because admission committees believe that an applicant's academic record in undergraduate school and DAT scores are among the best predictors of success in the first year of dental school, pre-dental students are encouraged to do well in both areas.

All but 4 of the 54 U.S. dental schools participate in the American Association of Dental Schools Application Service (AADSAS), the national application service for dentistry that is similar to the AMCAS program. Applications are accepted by AADSAS from June 1 through March 1. Because several dental schools begin interviewing in August, it behooves applicants to submit their AADSAS materials early. By American Dental Education Association agreement, no dental school may extend an offer of admission prior to December 1. Dental schools also invite the submission of a secondary

application to selected candidates. They require letters of evaluation from undergraduate faculty who know prospective students well. After application files are screened, most dental schools invite selected students to an admission interview.

Pharmacy School Admission

Because of the relative ease in obtaining jobs as pharmacy technicians, many pre-pharmacy students have worked in pharmacy environments. However, this type of exposure to the field can limit a student's view of the evolving scope of the profession. Because of the changing societal needs for drug therapy management, the pharmacy profession is becoming more clinically oriented. Career opportunities in pharmacy are rapidly expanding in the retail, community, hospital, and managed care sectors, as well as in research and the pharmaceutical industry. Along with participation in the safe distribution of pharmaceuticals, pharmacists are increasingly becoming involved in the health care team, participating in pharmacoeconomic decisions and direct patient care. Therefore, in addition to working and volunteering in pharmacy settings, pre-pharmacy and pharmacy students are encouraged to explore the many emerging options for pharmacy careers. Most colleges of pharmacy have information and publications to assist students in understanding these options. Admission committees are interested in students who have some understanding of the emerging scope of practice.

Pharmacy students currently enter their professional program during the course of their undergraduate studies. However, program structures are changing. As a result of new American Council of Pharmaceutical Education standards, all colleges of pharmacy in the United States are moving toward offering the Doctor of Pharmacy degree as the sole professional degree in the field (American Council on Pharmaceutical Education [ACPE], 1997). The Doctor of Pharmacy degree is a 4-year professional doctoral degree completed at a college of pharmacy after the accepted student follows a minimum of two preprofessional years of educational preparation. In some schools, students are accepted as freshmen and complete the 6-year course of study in the college of pharmacy.

Currently no standardized pre-pharmacy requirements exist across all colleges of pharmacy. Because most colleges of pharmacy accept cohort classes, students who lack even one course may not be given the same admission consideration as other applicants. Therefore, students who are interested in applying to colleges of pharmacy need to become familiar with the pre-pharmacy requirements for

each school to which they plan to apply. Approximately one-half (42 of 82) of the colleges of pharmacy require or recommend the Pharmacy College Admissions Test (PCAT) for admission (AACP, 2000). This test, administered by The Psychological Corporation, is typically offered in January/February, April, and October. Information about the PCAT is available from schools that require it for admission. In addition, most pharmacy schools require the Scholastic Aptitude Test (SAT) or the American College Testing Assessment (ACT).

Colleges of pharmacy currently do not have a centralized application service; each program develops its own application and designs its own admission process and procedures. Recently, the AACP and the AAMC have started a collaboration to develop a centralized application service for pharmacy schools based upon the AMCAS model. It will likely be available in 2002.

Students need to contact pharmacy schools early in their undergraduate studies to find out about their unique admission requirements and procedures. With that information, students can plan their academic programs to meet the needs of the individual colleges of pharmacy to which they plan to apply. For example, some pharmacy schools require that students complete specific pre-pharmacy course work prior to applying to a program. Other pharmacy schools have rolling admission and accept students as they apply and are qualified for the program. Others accept an entire cohort of students at a specified time.

While pharmacy programs differ somewhat in their admission procedures, typically students begin the application process during the early fall semester prior to beginning a pharmacy program the following fall. Application deadlines for most schools are January to March. In consideration of applications, pharmacy schools require academic letters of evaluation from faculty who know the students well. While all pharmacy programs do not regularly offer interviews to prospective students, the interview is increasingly being used as a component of the admission process. Currently, 60% of pharmacy schools require students to sit for admission interviews (AACP, 2000).

Physical Therapy Admission

The physical therapist works with patients to help improve their strength and mobility, relieve pain, and prevent or limit permanent physical impairment (American Medical Association [AMA], 2000). Because physical therapists work in a variety of settings, including hospitals, clinics, and private practitioner offices, students may benefit from observing

and volunteering in each area. In recognition of the many students who develop an interest in health professions as the result of cursory experiences or socialized expectations, most physical therapy programs require students to acquire an in-depth exposure to the field. Students' knowledge of the basic realities and challenges faced by practitioners must extend beyond the structured formalities of patient contact. To that end, some physical therapy programs require that prospective students keep logs to document their time spent and experiences encountered in the observation of physical therapists at work (Kerby, Patel, & Mittermeyer, 1999).

Currently, baccalaureate, master's, and doctoral degree training programs exist in the field of physical therapy; however, many policy makers in physical therapy programs are encouraging schools to grant only graduate degrees. As programs transition from being baccalaureate degree programs to master's degree programs, the status of the baccalaureate degree as an admission requirement is in flux. Although a baccalaureate degree may not be a prerequisite for application, it may be critical for a competitive edge.

While the necessary prerequisite course work will vary across institutions, most physical therapy programs require one year of general chemistry, physics, and biology with laboratory experiences. Additional course work in the social and behavioral sciences is strongly recommended. Students can learn more about core prerequisite course requirements for each physical therapy program from the *Directory of Physical Therapy Education Programs* (American Physical Therapy Association, 1999). If students plan to enter a master's or doctoral degree program in physical therapy, the Graduate Record Examination (GRE) must be taken (Kerby, Patel, & Mittermeyer, 1999).

Most physical therapy programs conduct one admission process per year and have a specified application deadline. Because physical therapy programs do not have a centralized application service, interested students must make applications to each individual institution or program. Generally, physical therapy programs do not have a rolling admission process. Instead, all applications are evaluated at one time after the application deadline; interviews are offered; and a cohort class is selected subsequent to the interviews. Therefore, early applications receive no advantage in the competitive process. Letters of evaluation from undergraduate faculty are usually required for the full application.

Physician Assistant Programs

Physician assistants are academically and clin-

ically prepared to practice medicine with physician supervision and take an active role in medical decision making and the provision of diagnostic and therapeutic services (AMA, 2000). Physician assistant programs expect applicants to have had a broad exposure to the profession. In fact, most students have an average of 48 months experience in a health care field or occupation prior to matriculation in a physician assistant program (White & Davis, 1999).

Accreditation standards for physician assistant programs are rigorous. At the present time, as long as they meet uniform education standards, accredited physician assistant programs have the flexibility to offer a variety of academic degrees (White & Davis, 1999). However, most physician assistant programs are moving from conferring baccalaureate degrees to bestowing graduate degrees. During this transitional period, many physician assistant programs will become dual degree programs in that a baccalaureate degree will be granted during the course of the program and a master's degree will be awarded at its conclusion. Graduates of accredited programs are eligible to sit for the Physician Assistant National Certifying Exam, administered by the National Commission on Certification of Physician Assistants (White & Davis, 1999).

Although the prerequisite course work will vary across institutions, most physician assistant programs require one year of general chemistry, one year of biology that often includes a course in microbiology, and one year of human anatomy and physiology, as well as course work in the social and behavioral sciences. Students interested in the physician assistant programs should consult directly with admission counselors from each institution to determine their specific program requirements. Most physician assistant programs use a standardized examination score in their admission processes. Although no single admission test is required across all institutions, different programs may stipulate that applicants submit scores from such examinations as the ACT, SAT, GRE, or Allied Health Professions Admissions Test (AHPAT). A common feature across these examinations is that they include examination material across the disciplinary spectrum and not just in science. It is typical for these exams to include reading, verbal, and quantitative, as well as science components.

Most physician assistant programs conduct one admission process per year and have specific time frames for application. Although physician assistant programs are developing a centralized application process, as of 2000, interested applicants to physician assistant programs must make application to each individual institution or program. Letters of

evaluation from undergraduate faculty are usually required for application. Selected candidates will be invited to interview at physician assistant programs where applicants' personal characteristics, interests, interpersonal and communication skills, and professional goals are most often the focus of the interview.

Role of Undergraduate Advisors

Though health professions schools may offer counseling sessions, tours, and open houses to prospective students where they share information about their programs and give students the opportunity to see their facilities, undergraduate academic advisors can help students explore the profession and choose an appropriate school. Therefore, students should contact both pre-health professions advisors in their undergraduate institutions and the school admission offices in health professions programs to establish formal advising relationships. Advisors can assist students in learning more about the various health care professions by encouraging their membership in pre-health professions clubs, directing them to relevant literature on the profession, introducing them to individual practitioners, or organizing activities or course experiences in the health care setting (Gordon, 1996).

As of 2000, 125 medical schools, 54 dental schools, 82 pharmacy schools, 196 programs of physical therapy, and 126 physician assistant programs were operating across the United States. Students who have made the decision to pursue a medical profession must define the desirable factors, such as the academic reputation of the program, the competitiveness of the applicant pool, the residency requirements, the cost of attendance and the availability of financial aid, and the licensure board passing rates and specialty choices of the graduates, of a health professions program. In comparing institutions, advisors can help their students recognize differences across health professions programs with regard to admission requirements, curricula, and school missions. Advisors might direct students to the relevant Web sites, such as those listed in Table 2, and should encourage students to schedule visits to the health professions schools in which they are most interested.

Standardized Testing and Letters of Evaluation

By fully communicating the roles that letters of evaluation and standardized testing play in admission selection, advisors can help students set themselves apart in the admissions process. Advisors can assist students preparing for standardized tests by

Table 2 Web site addresses of interest to advisors and prospective students

General Interest/Advising

www.nacada.ksu.edu/

National Academic Advising Association

www.naahp.org

National Association of Advisors for the Health Professions

Dentistry

www.adea.org/

American Dental Education Association

www.ada.org

American Dental Association

Medicine

www.aamc.org

Association of American Medical Colleges

www.ama-assn.org

American Medical Association

Pharmacy

www.aphanet.org/

American Pharmaceutical Association

www.aacp.org

Association of Colleges of Pharmacy

Physical Therapy

www.apta.org/

American Physical Therapy Association

Physician Assistant

www.aapa.org/

Association of Physician Assistant Programs

helping them become acquainted with the subject matter tested, the test format and types of questions used, the dates and places the examination is administered, the time-line for receipt of scores, the relative value of the examination score in the admission process, and the programs' policies on retaking the examination.

Although most programs expect to receive letters of evaluation at some point in the application process, students and some faculty members may not know who should write the letters and what kind of information should be included. Some program guidelines clearly specify who they would like to author the letters; some outline the academic or personal characteristics they would like addressed in the evaluations. Some committees of health professions programs ask students to identify individual faculty to write letters of evaluation; others expect applicants to request a letter from the Pre-

health Professions Advisory Committee at their undergraduate institution. Occasionally, admissions personnel will seek letters from the applicants' employers or from health care professionals with whom the applicant has worked. However, most letters of evaluation are written by faculty members who have taught or worked with applicants in an instructional, laboratory, research, or service setting (Elam, Taylor, & Strother, 1996).

Advisors can help students to prepare for the evaluation process by encouraging them to get to know their faculty at an early stage in their undergraduate education, not at the time they need written evaluations. By scheduling meetings with potential evaluators, providing a resume, and discussing career goals and relevant experiences, students can help potential evaluators have a better sense of who they are as individuals and how they might function as professionals.

Only letters written by persons who know the applicant well enough to evaluate his or her academic performance, personal qualities, and potential for success in a health professions program will be of value to the admissions committee. In a study surveying medical admission directors from across the United States, Chapman and Lane (1997) reported that letters of evaluation can be more effective if writers focus on three factors: personal characteristics of applicants, including their humanistic qualities, honesty, integrity, and motivation; interpersonal qualities, including attitude toward others, enthusiasm, team orientation, sense of cooperation, and communication skills; and classroom abilities, such as work ethic, classroom attendance, ability, and preparation.

Interviews

Professional schools use interviews to gain more information about the applicant's personal characteristics, interests, academic performance, and professional goals (Elam, Burke, Wiggs, & Speck, 1998). Programs will vary on the operating philosophy of the interviews, the number and length of the interviews, the type of interviewers used, the questions asked, the assumptions drawn, and the relative value of the interview in the selection decision. Most interviews will be designed to assess a variety of noncognitive factors such as communication skills, independence, realistic self-appraisal, determination, humanitarian interest and compassion, and level of maturity among applicants (Skaff, Rapp, & Fahringer, 1998). Interviewers will try to determine the applicant's commitment to the profession, leadership background, and involvement in cocurricular and community service activities.

Some interviewers will try to confirm that the applicant's academic record provides strong predictive value regarding performance in their school's curriculum.

Advisors can help students prepare for interviews by encouraging them to reflect on their reasons for pursuing a health career. Some applicants will participate in mock interviews to increase their comfort level and to anticipate questions. Advisors can help students recognize that the interview should be a two-way street. Interviewers will seek to gain additional information about the applicant, and the applicant should do the same about the school.

The Selection Decision

Early in the prospective applicants' undergraduate educations, they should inquire at the programs where they plan to apply to identify the typical profile of a successful candidate. They should ask, "What are the most important academic and nonacademic factors that admission committees are seeking in competitive applicants?" The schools may expect candidates to have minimum grade-point averages and standardized test scores, a specific number of hours of relevant observations or work experiences, and other additional qualifications. This information will be invaluable as the students proceed through the admission selection process. Even after interviewing at a particular institution, applicants should continue to gather information on the program before deciding to matriculate to a school. The applicant may want to make a second visit to a prospective school to speak with the admission and financial aid staff, faculty, currently enrolled students, and others. In the end, applicants who make well-informed decisions, seeking the counsel of their health professions advisors, are more apt to have successful and satisfying experiences in their health professions programs.

References

- American Association of Colleges of Pharmacy. (2000). *Pharmacy admissions requirements 2000–2001*. Alexandria, VA: Author.
- American Association of Dental Schools. (2000). *Admission requirements of U.S. and Canadian dental schools, entering class of 2001, 38th edition*. Washington, DC: Author.
- American Council on Pharmaceutical Education. (1997). *Accreditation standards and guidelines for the professional program in pharmacy leading to the doctor of pharmacy degree*. Chicago: Author.

- American Medical Association. (2000). *Health professions career and education directory 2000–2001, 28th edition*. Chicago: Author.
- American Physical Therapy Association. (1999). *Directory of physical therapy education programs*. Alexandria, VA: Author.
- Association of American Medical Colleges. (1999). *Medical College Admission Test (1999 announcement)*. Washington, DC: Author.
- Chapman, C. P., & Lane, H. C. (1997). Perceptions about the use of letters of recommendation. *The Advisor*, 17, 31–36.
- Dickman, R. L., Sarnacki, R. E., Schimpfhauser, F. T., & Katz, L. A. (1980). Medical students from natural science and nonscience undergraduate backgrounds. *Journal of the American Medical Association*, 243(24), 2506–09.
- Elam, C. L., Burke, M. M., Wiggs, J. S., & Speck, D. F. (1998). The medical school interview: Perspectives on preparation. *NACADA Journal*, 18(2), 28–32.
- Elam, C. L., Taylor, E. D., & Strother, E. N. (1996). Preparing for medical school and the medical profession: Advice to advisors. *NACADA Journal*, 16(2), 34–38.
- Gordon, A. R. (1996). Predental advisors—An unrecognized asset of the profession. *Journal of Dental Education*, 60(5), 416–17.
- Kerby, K., Patel, V., & Mittermeyer, F. (1999). A four-year plan for college pre-physical therapy students. *The Advisor*, 19(4), 20–24.
- Koenig, J. A. (1992). Comparison of medical school performances and career plans of students with broad and with science-focused premedical preparation. *Academic Medicine*, 67(3), 191–96.
- Sanders, R. M. (1996). The candidate of the future. *Journal of Dental Education*, 60(5), 411–15.
- Skaff, K. D., Rapp, D. A., & Fahringer, D. (1998). Predictive connections between admissions criteria and outcomes assessment. *Perspectives on Physician Assistant Education*, 9(2), 75–78.
- Varner, K. (Ed.). (1999). *Medical school admission requirements, 2000–2001, 50th edition*. Washington, DC: Association of American Medical Colleges.
- White, G. L., Jr., & Davis, A. M. (1999). Physician assistants as partners in physician-directed care. *Southern Medical Journal*, 92(10), 956–60.

Authors' Notes

Carol Elam, Ed.D., is the Assistant Dean for Admissions at the University of Kentucky College of Medicine and conducts research on medical school interviews and predictors of medical student performance. For further information about this article,

please contact Dr. Elam at clelam1@pop.uky.edu.

Daniel C. Seaver, M.S.Ed., is the Assistant Dean of Admissions and Student Affairs at the University of Kentucky College of Dentistry. His research interests include admissions, student affairs, and student personality types and learning styles.

Peter N. Berres, M.A., is the Assistant Dean for Student Affairs at the University of Kentucky College of Allied Health Professions. A frequent presenter

at NACADA meetings, he has focused his research and scholarly interests on admissions, advising, and counseling noncompetitive students.

Barbara F. Brandt, Ph.D., is Assistant Vice President for Education at the University of Minnesota Academic Health Center. She was formerly Associate Professor, Division of Pharmacy Practice and Science at the University of Kentucky College of Pharmacy. Her research and scholarly interests include curricular innovations, assessment methods, and interdisciplinary education.