particular time, place, or year in the residents' total educational experience. Over these several years as an educator in the Family Practice Residency Program the author has developed a checklist of crucial points to remember in her ongoing responsibility to *each* resident.

1. The primary reason for being here is the education of the residents.
2. Be available; be accessible – "the open door policy."
3. Be flexible.
4. Seize the opportunity of the moment; every encounter, however brief, can be a learning experience.
5. Listen!
6. Individualize the residents; meet each one where he/she is in the knowledge of social work and social workers and begin building there.
7. Give immediate *verbal* feedback and *record* promptly in the problem-oriented medical record.
8. Invite and involve resident input, feedback, and evaluation whenever feasible in curriculum planning/teaching.
9. Remember, the social worker represents the social work profession: what kind of model is he/she?


**References**

1. Johnson AH, Fisher JV, Guy LJ, et al: Developing behavioral science for a family practice residency. J Fam Pract 4:319, 1977
2. Houston WR: The doctor himself as a therapeutic agent. Ann Intern Med 11:1416, 1938
3. Aring CD: The physician's physiology and his power of healing. JAMA 235:1013, 1976


# Teaching Preclinical Medical Students in a Clinical Setting


J. Dayton Voorhees, MD, Arthur Kaufman, MD, Warren Heffron, MD, Rebecca Jackson, MD, Peter DiVasto, PhD, William Wiese, MD, and Benson Daitz, MD

Albuquerque, New Mexico


The demand for introduction of family practice experience and role modeling into the undergraduate medical curriculum has increased commensurate with the growing popularity of family practice as a career choice for graduating medical students. Traditional medical education frequently breeds frustration during preclinical years.[1,2] While most students begin their medical training with a role model in mind of a physician in clinical practice, the satisfaction of giving care is delayed until the clinical years. Preclinical students are passive learners, giving nothing to patients, nothing to their community. This can be especially frustrating for the many students who were committed, active participants in community service prior to entering medical school. Students question the relevance of their preclinical classroom instruction for they cannot place new information in its proper clinical context.

The climate of the preclinical years often breeds strained social interactions. There are relatively few small-group seminars and rare close, sustained personal contact with professors. Medical students are trained in isolation from other health-care professional students, hindering development of team work skills they are expected to use upon graduation.[3]

In 1975, the Department of Family, Community and Emergency Medicine of the University of New Mexico School of Medicine embarked upon an educational experiment designed to supplement the educational environment of preclinical medical students with a longitudinal clinical experience beginning in the first year of medical school. This report communicates the results of two years' experience with this project in terms of achieving the educational objectives of the Department.


This study was presented at the Research in Medical Education Conference of the American Association of Medical Colleges meeting in San Francisco, California in November, 1976.


Requests for reprints should be addressed to Dr. J. Dayton Voorhees, Department of Family, Community and Emergency Medicine, University of New Mexico, School of Medicine, 1007 Stanford, NE, Building 7, Albuquerque, NM 87131.


## Methods

The University of New Mexico School of Medicine has long offered preclinical medical students several brief courses which introduce first year students to clinical medicine. Mandatory courses in emergency medicine and clinical interviewing are given during the initial months of the first year of medical school. However, skills learned in these courses have had no immediate application for the students.

By adding physical diagnostic skills and knowledge about common primary care problems, the Department believed the students would then possess the rudiments of a clinical knowledge base necessary for providing general health care. Thus, a course entitled "Primary Care and Its Social Dimensions" was developed for the entire first year class of 75 students and offered just after completion of the emergency medicine and interviewing courses. The course ran eight hours per day for three consecutive days in 1975 and for five days in 1976.*

The Department then offered elective clinical experiences in which preclinical students could develop their newly acquired skills as well as give service to the community. Sites were chosen on the basis of demonstrable need for primary health-care services. Students from the Colleges of Nursing and Pharmacy participated in many of the electives, enabling the formation of multidisciplinary student health-care teams.

*Copies of the Course syllabus are available in limited supply. The eight problems discussed are coronary artery disease, hypertension, shortness of breath, sore throat, ear ache, peptic ulcer, alcoholism, and cancer.

Electives were offered one afternoon per week during the students' free time and lasted the entire academic year. Prior to the start of the clinical experiences, all participating health science students were given further instruction in history taking, physical assessment, and charting.

## Results

Ninety-five preclinical medical students (63 percent of both classes) have participated in the electives over the past two years. The electives for 1975-1976 and 1976-1977 are listed in Tables 1 and 2 respectively.

The Education Committee of the Department feels its educational goals are better achieved through illustrative, direct, personal experiences rather than through lectures. Though the former offers less organized content about, for example, family dynamics, cross-cultural medicine, epidemiology, health-care delivery and financing, the Committee feels this is more than compensated for by the higher degree of student interest in these problems and more meaningful retention of material generated by the electives.

**Table 1. Electives During 1975–1976**

| Elective | Medical Students | Nursing and Pharmacy Students |
|---|---|---|
| Juvenile Detention Home | 10 | - |
| Rape Crisis and Follow-up Care | 8 | 4 |
| Prison Health Care | 8 | 4 |
| Nursing Home Clinic | 4 | 3 |
| Senior Citizens' Center | 3 | 3 |
| Home Health Care | 2 | - |
| Rural Health Care | 2 | - |
| | 37 | 12 |

**Table 2. Electives During 1976–1977**

| Elective | Medical Students | Nursing and Pharmacy Students |
|---|---|---|
| Rape Crisis and Follow-up Care | 10 | 2 |
| Prison Health Care | 8 | 5 |
| Nursing Home Clinic | 8 | 4 |
| Home Health Care | 10 | - |
| Rural Clinic #1 | 2 | - |
| Rural Clinic #2 | 7 | 2 |
| Rescue Mission | 3 | - |
| Children's Shelter Clinic | 4 | 2 |
| Patient Support Service | 2 | - |
| Death and Dying | 4 | - |
| | 58 | 15 |

The majority of students found that the electives stimulated their interest in basic science courses, especially anatomy, pharmacology, and behavioral science. They also found that devoting one afternoon per week caused little disruption in study time. Because patients they saw were actually dependent upon their service, they took the electives seriously and showed exceptional commitment.

Elective participants functioned in an informal atmosphere, the students and faculty interacting one-to-one. Relationships were more like those of colleagues than of students and teachers and as a result competition among the students was almost nonexistent.

For most of the medical students, these electives were their first learning and working experience with either nursing or pharmacy students. In their evaluations, medical students repeatedly commented on how much more adept at care-giving skills the nursing students were and that the pharmacy students gave invaluable information about the unfamiliar medications patients were taking. As a by-product of this medical-nursing-pharmacy college collaboration, the respective faculties were drawn closer.

## Conclusion

Multiple, varied, clinical electives for preclinical medical students offered by the Department of Family, Community and Emergency Medicine generated in these students a deep personal involvement with their patients. Students became immersed in the learning event and were fully engaged with real life problems in the surrounding community. The electives facilitated a healthier, more cooperative learning environment with fellow medical students, other health science students, and faculty. Thus, clinical electives for preclinical medical students can be successfully integrated into the curriculum and can favorably influence medical students' attitudes toward their early medical education.

### References


1. Jason H: Evaluation of basic science learning: Implications of and for the 'GAP Report'. J Med Educ 49:1003, 1974
2. Rezler, AG: Attitude changes during medical school: A review of the literature. J Med Educ 49:1023, 1974
3. Scher ME, Ripley HS, Johnson MH: Stereotyping and role conflicts between medical students and psychiatric nurses. Hosp Community Psychiatry 26:219, 1975

Continued from page 450

the same facts as in the example above, except that the newly-hired Miss Green works only part-time and is paid $4,500.

Even though Dr. Smith's FUTA wages are the same as in the first example, his credit base shrinks to $4,000. *Reason:* The 1977 wage total ($14,500, the sum of Miss Brown's $10,000 and Miss Green's $4,500) is only $4,000 more than 105 percent of the 1976 total ($10,500). And since $4,000 is smaller than the FUTA credit base #1 ($4,116), it must be used by Dr. Smith as his credit base. *Result:* Dr. Smith's jobs credit is $2,000.

### Credit Base #3:

The final base is a flat 50 percent of your 1977 FUTA aggregate. In other words, if this base is used, the actual credit is one half of one half of your 1977 FUTA wages. But, in fact few doctors will use it, as it generally is not the smallest of the three alternatives. It is designed mainly to put a credit ceiling on new and rapidly expanding practices.

Congress anticipated that you could end up with a bigger saving from the combined credit-deduction than you actually pay out in wages. Therefore, you are not entitled to a full deduction *and* the new credit. You must reduce your expense deduction for salaries and wages by the amount of your job's credit. In other words, if your credit is $2,100, you lose $2,100 in deductions. This restriction certainly reduces the net tax savings from the credit. However, balancing the new credit against the lost deduction, the credit base is still valuable.

For a PC in the 20 percent tax bracket, a credit dollar reduces its tax bill five times as much as a deduction dollar. Even for a self-employed doctor in the 50 percent tax bracket, a credit is twice as valuable.

An interesting question involves the rough parallel of the 10 percent investment credit to the jobs credit. The investment credit has a recapture rule whereby a taxpayer may have to pay back his credit if he sells his investment soon after buying it. Does the jobs credit have a recapture rule? In other words, if a new employee is released next year, does one have to pay back the credit taken? The new law does not provide for any recapture of the jobs credit. New regulations may say otherwise. But as of now, you are not locked into keeping an employee on the payroll simply because his or her wages helped you qualify for a jobs credit.

Of course, you can claim the credit on your 1978 return as well as your 1977 return. But, for 1978, the credit will be figured on FUTA and total wage increases between 1977 and 1978.

A profitable note: The employee does not have to be hired in 1977 or 1978 to win you a credit. A new employee put on the payroll in 1976 may help you qualify because the credit is based on payroll increases – not on the employment of any individual. So an employee hired late last year may have little impact on your 1976 FUTA aggregate and total wages. But when the employee has been on the payroll for all of 1977, their presence may make the difference. Their 1977 wages may qualify you for the credit.

In 1978 the FUTA base is scheduled to go from the first $4,200 of an employee's wages to the first $6,000 of that year. The new law says that (for purposes of figuring the jobs credit) the FUTA base is to be treated as $4,200 for *both* 1977 and 1978.

The jobs credit places a premium on hiring part-time employees. A part-timer can have the same $4,200 FUTA base as someone making much more in total wages. Remember, it is the first $4,200 of an employee's wages that really count when figuring the jobs credit. As long as your other wages have taken a big enough rise, in other words, as long as the "total wages" base is not the smallest, two new parttimers can produce a credit twice as big as one new full-time employee. Consider this example:

Dr. Parks is an employee of his professional corporation and made $48,000 in 1976. The only other PC employee, Dr. Park's nurse, earned $12,000. As a result of salary increases, the PC's payment to these two employees will go from $60,000 to $70,000 in 1977. Dr. Parks also wants to hire a receptionist this year.

*If he hires a fulltimer:* A full-time receptionist is put on the PC payroll

Continued on page 468