Letters to the Editor

The Journal welcomes Letters to the Editor; if found suitable, they will be published as space allows. Letters should be typed double-spaced, should not exceed 400 words, and are subject to abridgment and other editorial changes in accordance with journal style.

Pediatric Training in Family Practice

To the Editor:

I wish to both commend and criticize the study by Poole *(Poole SR: Pediatric behavioral science in family practice. J Fam Pract 16: 365, 1983)* regarding pediatric curriculum development for family practice. His work is an excellent example of the type of curriculum development that must take place for the continuing clinical development of our specialty. He has addressed in a rigorous fashion such issues of curriculum development as teaching formats, instructor roles, and evaluation.

Despite the overall excellence of this work, I wish to note a serious deficiency in the way in which decisions were made regarding the intensity, or level of capability, at which pediatric problems were taught. As is true of nearly all family practice curriculum development to this point, the providers of this care (in this case, practicing family physicians) were the sole source of advice as to how expert a family physician needed to be to manage certain pediatric problems. As we have clearly shown in our recently published pilot study *(Schwenk TL, Clark CH, Jones GR, et al: Defining a behavioral science curriculum for family physicians: What do patients think? J Fam Pract 15:339, 1982)*, many patients have a much different notion of their expectations of our expertise than we have of ourselves. In particular, many pediatric behavioral problems, including discipline problems, school problems, temper tantrums, and toilet training, are felt to be clearly outside the typical role definitions of a family physician, and patients in our study requested referral in a majority of these cases. The curriculum developed by Poole, on the other hand, places a strong emphasis on competency in these problems, and expects that the family practice resident will develop "definitive" capabilities in these areas. Our study, which has recently been expanded and replicated to include a diversity of demographic and socioeconomic populations, would suggest that this is a waste of critical educational time resources.

I would not suggest that we always fill only the most limited role as defined by our patients, but would note that we need to negotiate our roles carefully with that group most responsible for our existence and our continued success—our patients.

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The Biopsychosocial Model in Medical Education

To the Editor:

As a "mutant" in family practice, and an avid reader of Dr. George Engel's writings, I shared Dr. Smilkstein's concerns[1] upon reading Dr. Engel's *New England Journal of Medicine* paper "The Biopsychosocial Model and Medical Education—Who Are to Be the Teachers?"[2] I agree that he appeared to assign to psychiatrists the responsibility of teaching the biopsychosocial model to the rest of the medical profession.

Dr. Engel's clarification[3] is welcome, though sadly he fails to acknowledge a role for family medicine in bringing the biopsychosocial model to medical students and residents. While he appears to recognize that we have embraced the model he has advocated so effectively, he seems not to see that family medicine has become the first "mutant" specialty (derived from general practice), or that it can now demonstrate the model, in teaching and in practice, in most medical schools.

Many medical students are fortunate enough to have role models in several specialties who demonstrate a biopsychosocial approach to their patients. Nevertheless, the Department of Family Practice is where the approach is most fre-

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quently taught and modeled by all (or most) of the faculty and residents. For this reason, the next generation should see the more common inclusion of family medicine experience as a recommended part of residency training in other medical specialties.

I share Dr. Engel's abhorrence of the politicizing of the biopsychosocial model of medical care. It is too important a concept to be consigned to one faction of the profession for its investigation and development. It would become less political, however, if Dr. Engel and those psychiatrists who will continue his efforts could acknowledge, welcome, and encourage the past, present, and potential contributions of family medicine to the integration of the biopsychosocial model into medical education and care.

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1. Smilkstein G: The biopsychosocial model: Whose legacy? J Fam Pract 15: 811, 1982
2. Engel GL: The biopsychosocial model and medical education—Who are to be the teachers? N Engl J Med 306:802, 1982
3. Engel GL: The biopsychosocial model and family medicine. J Fam Pract 16:409, 1983

Systematic Program Evaluation

To the Editor:

Several issues of the *Journal of Family Practice* and other readings have stimulated the following comment: There is a need to understand the position of program evaluation in the broad spectrum of research skills and philosophies. This letter is an effort to clarify that position. It is useful, when attempting to understand the place of evaluation in the general body of research, to draw some well-defined boundaries. These boundaries overlap and may appear indistinct, but a clear definition of boundaries is an aid toward understanding, not necessarily a complete statement of reality. However, an imprecise model is usually better than no model at all.

Pure research can be viewed as those research activities that (1) lead to the capacity for broad generalization (that is, conclusions apply to all populations across indefinite periods of time), (2) lead toward the development of fundamental physical, biological, social, or educational laws, and (3) lead to conclusions and implications addressed to all humanity. Examples abound in the physical and biological sciences: genetics evolution, relativity, the laws of thermodynamics.

Applied research consists of those activities that (1) lead to findings that can be generalized across time but are not expected to apply to all populations, (2) may lead to fundamental laws but only as a by-product, not as a primary intent, and (3) lead to conclusions and implications addressed to a restricted audience, for example, a specific ethnic group and its teachers, the physically handicapped, or slow learners and their teachers. Examples of applied research abound, some of which have been cited above. Others include research into innovative methods of child care and investigation of new methods of medical treatment.

Program evaluation consists of those activities that (1) lead to re-

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sults applicable only to the particular population studied at the particular time it is studied, (2) will not lead to fundamental laws except by an unwarranted extension of inference far beyond the data, and (3) lead to conclusions and implications addressed to a small group (or one person) of decision makers. Their decision is relevant only to the restricted population. Evaluation of clinic efficiency is an appropriate example.

The implications of this conceptual framework are simple and direct: there is nothing wrong with how we have been going about pure and applied research. A great deal more of both needs to be done. The model, however, does lead to the conclusion that program evaluation should be viewed as a system to aid decision making, not as a series of small applied research projects. Evaluations should be viewed as a worthwhile subject matter deserving of our best and most talented—not as second-rate research projects.

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Vasectomy, Atherosclerosis, and Autoimmune Disease

To the Editor:

"Vasectomy" by Brownlee and Tibbels *(Brownlee JH, Tibbels CK: Vasectomy. J Fam Pract 16:379, 1983)* was a fine review article. However, mention was not made of the important, though still unproven, theory that vasectomy may induce atherosclerosis and autoimmune disease.

Alexander and colleagues have demonstrated that antisperm antibodies form in both men and monkeys after vasectomy,[1] vasectomized monkeys show a greater frequency of atherosclerosis than matched controls,[2,3] and nonhypertensive vasectomized men under 40 years of age show an increase in retinal arteriolar changes when compared with matched controls.[4] Although their data were limited, Walker et al[5] showed that with the passage of time, vasectomized men have higher rates of hospitalization for arthritis and connective tissue disorders than do nonvasectomized men.

At present, the vasectomy-atherosclerosis-autoimmune disease relationship in man remains uncertain. Long-term observational data of vasectomized men have not yet been published. In addition, the relative risk of vasectomy in men who have hypertension or hyperlipidemia, who smoke, are sedentary or overweight, or who are prone to occupational or family stress is unknown. Nevertheless, I recommend that presterilization counseling include a discussion of these possible risks.

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