

Letter to the Editor

Suggested curriculum for experimental medicine

1. Introduction

Some medical-schools have professors of experimental medicine and some of these perhaps all, have teaching duties. The author retired from a such a job after 25 years in office. The duties were teaching the medical students to conduct research. The author took the subject seriously and tried several approaches. The students were interested in how much they could count at a glance. It eventually formed the basis of a test that was used to measure observation [1].

One of the needs at the present time is tuition in how to fend off observer error. The need is genuine, and appears to be permanent. One way to do that is to teach medical students to observe [2].

Observer error contaminates virtually all the evidence a doctor has of a disease, from the images in his long-time memory to details of the patient before him. It appears to kill 40,000 people a year in the USA [3], and it occurs despite reminders [4]. It may be a function of the way the human system of cognition handles data, with many facts assumed instead of measured. It is essential that all avenues leading to observer error are closed off. It seems to be overcome by drill, even if that has to be done a number of times to be effective.

The public seem to want care that is effective, reliable and available when needed. It is the delivery of good of health care that seems to be important.

2. Method

Instruction in the course was by exercise of the skill, and feed-back of the results to both individuals and class of their prowess in the skill. It served to show class deficiency of, for example, observation.

Observer error does not stop at observation however. It spills over into all aspects of medicine. The course in experimental medicine had 15 modules (clinical computation, communication (including facial expression and body-language), co-operation, decision-making, diagnosis, learning, knowledge sources, observation, records-audit, resource cost, self-management, therapeutic procedures, thesis and thinking [5]. Decision-making in uncertainty (statistics) was the biggest module, ably taught by Dr. F.R. Comerford (deceased).

3. Conclusions

The students became familiar with certain research techniques by having them carried out several times on themselves, and some to the joy or satisfaction that can accompany discovery. One person also

reached a score of 32 visible properties noted in an object. A professor of experimental medicine will likely have experimental techniques of his own familiar world to put into use. Anyone looking for a lead may find observer error a rich and satisfying source.

Séan M. Lavelle
Department of Experimental Medicine
National University of Ireland
Galway
Ireland

References

- [1] Lavelle SM, Kerr D. Are medical students good observers? *Technology & Health Care*. Submitted.
- [2] Koran LM. (1975) The reliability of clinical methods, data and judgments. *New England J Med* 293, 642-646, 695-704.
- [3] Kohn LT, Corrigan JM, Donaldson MS. *To err is human*. National Academy Press. Washington, D.C.
- [4] McDonald CJ. (1976) Protocol-based computer reminders, the quality of care and the imperfectability of man. 295, 1351-1355.
- [5] Lavelle SM, (1989) How to . . . set up a course in objective methods of clinical practice. *Medical Teacher*, 11, 59-72.