

Trainee learning

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SUMMARY. A study of the learning achieved by a small group of vocational trainees during the first six months of their year in general practice showed significant gains ($p < 0.001$) in factual recall as measured by multiple choice questions.

Changes were also observed in the answers to a repeated modified essay question test, suggesting that the same trainees were becoming more aware of emotional and social factors in their patients.

Introduction

IN an earlier study (Buchan and Richardson, 1973) we showed that a group of trainees, whose learning was measured by timing their consultations at intervals during the year, became quicker at performing all the main clinical tasks but retained their rank order pace throughout the year. Howie and Dingwall-Fordyce (1976) have also shown that, using simulated consultations, trainees become more efficient in requiring less information for patient management. Such objective evidence of developing skill is scarce; the more it can be added to, the surer will be the grounds on which training for general practice is based (Richardson, 1977).

Method

With the co-operation of another group of 11 trainees in general practice I have now tried to measure gains in two kinds of knowledge. Using a 15-question, five-choice, true/false paper constructed to test recall and reason, and also a case management question designed to elicit clinical and behavioural judgements, I obtained results at the outset of the trainee year and, with the same papers, six months later. Both papers were small scale models of the multiple choice and modified essay question papers used in the MRCGP examination and, from the trainees' standpoint, were a useful introduction to that examination.

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Results

Multiple choice questions

Table 1 shows the results obtained in September and March; the usual scoring conventions were used:

Correct response	+ 1
Incorrect response	- 1
No response	0

Viewed as a group, these trainees showed a statistically significant improvement in MCQ performance. This was due to an increase in the number of correct responses and a marked decrease in the number of items left unmarked; the small proportion of wrong answers remained about the same. All but one trainee showed an improvement in percentage mark (i.e. the total mark), the differences between the two tests ranging from more than 27 per cent to minus four per cent. These results strongly suggest a substantial increase in 'factual' knowledge during the first half of the trainee year.

Modified essay question

This consisted of five sections, each on a separate page, and unfolded a surgery consultation with a mother and her four-year-old son. The problem presented for comment was an aggressive mother with a child whose complaint seemed minor and whose

Table 1. Performance in the 15-question MCQ paper by 11 trainees (maximum possible group score = $15 \times 5 \times 11 = 825$).

Response	September 1976 scores %		March 1977 scores %	
Correct	444/825	54	581/825	70
Incorrect	91/825	11	103/825	13
None	290/825	35	141/825	17
	Total	100	Total	100

χ^2 (single tail) 52.4; $p < 0.001$.

behaviour in the surgery was uncontrolled, concluding with a late, home visit for an ordinary cold. Trainees were asked about their immediate reaction, their views on the reasons for the consultation, their prescribing policy, their attitude to mother and child, and the use they would make of the home visit.

Unlike the usual case management question, which is marked against a consensus standard, what was sought from the trainee's responses was change over a period of time. A list of all the replies was drawn up for each of the two tests and a comparison was made between the number of comments in various groups. The most marked changes from the first to the second test were as follows: increased emphasis on reasons why the mother appears unable to cope; increased belief in placebo value of cough linctus; increased mention of the need to create a good doctor-patient relationship; increased emphasis on the value of exploring family reasons for a home visit; and greater emphasis on the importance of reassuring the mother.

Viewed as a whole the main changes were first in the trainees' perception of the need to understand the behaviour of both child and mother in a family context, and secondly towards a recognition that treatment was much more a psychosocial than a pharmacological matter. In short, a true general-practitioner approach became clear.

Discussion

There are, of course, more elaborate ways of assessing training progress (Freeman and Byrne, 1976) but there are few more accurate than this method of applying the same test at intervals. What our tests could not do was locate the source of the improvement in knowledge and judgement: was the new learning derived from patient contact, trainer tutorials, reading, or attendance at our day release course? To say that all were relevant is to beg an important question, perhaps because it would be technically very difficult to design both training and testing in so controlled a way as to be able to attribute learning behaviours to specific sources. Yet, if training is to continue to advance, such educational experiments should be mounted alongside traditional methods.

References

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	(£75 per week)	(£95 per week)

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