PRACTICE OBSERVED

Rethinking Established Dogma

Vocational training for general practitioners: I

MICHAEL A VARNAM

*I keep six honest serving men
(They taught me all I know)
Their names are WHAT and WHY and WHERE and WHEN
and HOW and WHO.* Rudyard Kipling

Established dogma? How can this apply to vocational training for general practice when it is only three years since it became mandatory and only 16 since the royal commission described the case for it in detail? Whether you believe that trainees are spoon fed or that trainers get a generous grant for doing nothing, or even if you wonder what all the fuss is about, there is little doubt that a lot has developed quickly. But what is happening, and why, and what is training for general practice going?

Surely the time has come for all concerned to "stop, look, and listen" before proceeding with the development of training for vocational training but will suggest questions that the profession as a whole might care to consider. The answers may depend on a variety of local factors but the questions apply to all.

Littlewick Medical Centre, Nottingham Road, Ilkeston DE7 5PR
MICHAEL A VARNAM, MB, MRCP, general practitioner and assistant adviser in general practice to Nottingham University

Why

Why should there be special training for general practice? The General Medical Services Committee has recently published a comprehensive and lucid account of British general practice.¹ In first describing the current position and then suggesting the "way ahead" the report not only makes a case for the development of services, but also confirms that general practice is a cost effective way of meeting the primary medical needs of the population. As general practitioners have a complicated and fundamental role to play in the provision of health care, then some postgraduate preparation for this career seems reasonable. But is vocational training as now practised the best way?

What

What is vocational training attempting to do? To prepare doctors for a career in primary medical care, of course. What does this mean in detail? The structure of vocational training has been effectively laid down by Parliament and the subsequent decisions of the Joint Committee on Postgraduate Training for General Practice and the Secretary of State. Is one, however, allowed to wonder whether two years in hospital is an ideal way to prepare for a career in general practice? What will the young doctor be doing on completion of training? Definitions of general practice vary from the complex half page produced by the Levensonhorst Working Party to Pritchard's modification of Marson and Morrell's work which defines the objectives of a primary care service as: (i) it should be accessible to the whole population; (ii) it should be acceptable to the population; (iii) it should identify those medical needs of the population which can be prevented, modified, or treated; (iv) it should make maximum use of manpower and resources to meet the medical needs of the population.²

A doctor who completes vocational training now must not only be able to put these laudable aims into practice, but must also change to meet the different challenges that the next 30

years will have totally different experiences depending on which year they joined. Trainees on another scheme that was noted for the active and enthusiastic participation of its trainees recently asked why their "teachers" had so few skills in group leadership when some of them had been concerned in vocational training for 10 years.

The role of the day release programme will vary from place to place depending on many local administrative and historical factors. As the average life expectancy of a course organiser is three years, most will have inherited a framework established by someone else.^{3,4} It is often therefore difficult to work out precisely why the current framework came about. Surely trainees, trainers, course organisers, and regional advisers should be asking themselves:

(10) What should trainees on your scheme "be taught" on the half day release programme that they will not learn anywhere else?
Many schemes are already able to say broadly what is expected to be achieved during the half day release programme. It is then much easier to decide on the specific objectives for an individual session. The objectives may be excellent but if attendance is poor the absentees will not benefit.⁵

(11) How can trainees be encouraged to regularly attend?

If trainees participate in planning the programme, are encouraged to prepare for individual sessions that are then led in an interesting and imaginative way, then attendance is likely to be high. In some schemes where nearly all the posts are in hospital, or when a doctor is on medical take or on duty for the labour ward attendance is obviously difficult. The course organiser may need to negotiate with consultants arrangements for alternative study leave for those who are unable to attend

regularly. It is unlikely that "laying down the law" will be successful in encouraging attendance.

Despite almost universal acceptance that the half day release programme should play a pivotal role in helping trainees to make the most of their learning opportunities, there are still many schemes in which hospital trainees are not given the opportunity to attend. Though the organisers would undoubtedly point to their own local difficulties, surely it is time for these to be looked at with renewed energy and solutions found.

As with the other questions that suggest that the flexibility of vocational training has got out of hand, I am not implying that a strait jacket should be imposed on either trainees or the course organiser in relation to the half day release programme. The basic question remains: Why am I doing it this way? If there is no convincing answer then change is indicated.

References

- Royal Commission on Medical Education. *Report*. London: HMSO, 1968.
- General Medical Services Committee. *General practice: A British model*. London: British Medical Association, 1980.
- Levensonhorst Working Party. *Continuing education and the general practitioner*. London: HMSO, 1980.
- Pritchard P. *A manual of primary health care*. 2nd ed. Oxford: Oxford Medical Publications, 1981.
- Ross G, Douglas A, Gray DF, Selby JV, eds. *Fourth national training conference*. Occasional paper 18. London: Royal College of General Practitioners, 1981.
- Varnam MA. The selection of trainees. *J R Coll Gen Pract* 1983;33:573-577.
- Roberts J, Freeman J. *History of general practice training*. *J R Coll Gen Pract* 1979;29:13-15.
- Varnam MA. Problems in vocational training. *The way ahead*. *J R Coll Gen Pract* 1981;31:16-22.
- Wright MS, Hughes RCW. The course organiser: a case for change? *Br Med J* 1982;284:10-20.
- Wright MS. *General practice: The course organiser*. *Br Med J* 1981;283:21-3.

This is the first of a two part paper.

Practice Research

Measles in the Southern Health Board—implications for resources

WILLIAM W M MCCONNELL, VINOD K TOHANI

Abstract

During a recent epidemic of measles in the Southern Health and Social Services Board in Northern Ireland it became apparent that the level of notifications of measles by general practitioners did not reflect the true incidence of the disease at that time. In trying to establish a more accurate measure of the incidence of measles it became clear that much money and manpower had been used to treat this outbreak. We tried to cost a defined period

covering 1 January to 30 June 1983 to draw attention to the possible benefits of a more effective measles vaccination programme in preventing disease and saving resources. The implications of our present poor rate of vaccination were measured for hospital services, primary medical care services, and related consequences. The costs for the defined period were approximately £175 831, and if the outcome had been worse in a few cases it might have been as high as £1 375 831.

Introduction

Before immunisation was started measles was common in childhood. Over 90% of the population developed measles before the age of 20. In well immunised populations the number of cases of measles infection has dropped dramatically. In the United States, with their high level of vaccination uptake, not a single case of measles was reported during the week ending 15 January 1983, the first time in any week since reporting began.⁶ Measles

Southern Health and Social Services Board, Co Armagh, Northern Ireland
WILLIAM W M MCCONNELL, MB, MRCP, community physician
VINOD K TOHANI, MB, MRCP, registrar in community medicine
Correspondence to: Dr W McConnell, Southern Health and Social Services Board, 20 Seange Industrial Area, Portadown, Co Armagh, Northern Ireland BT61 5PH.

years will produce. To an extent the type of training that is undertaken and the way that it is performed must depend on one's view of both the present and the future state of general practice. So the question for everyone in general practice (not only trainers) is as follows.

(1) What is it about general practice that you want to teach or that someone else must learn?

Education or training? Whenever general practitioners or consultants who are trainers get together you may be sure that someone will say "I think they are spoon fed." Though this may tell the listener more about the speaker, there is a relevant anxiety underlying the question. Preparation for general practice must be more than a sausage machine experience, where the end product is determined by the mixture of the ingredients and the speed of the machine. Medical education for primary care must do more than ensure that the aspiring general practitioner has been exposed to several different experiences, it must also prepare doctors to discover themselves, innovate, and adapt to the changing needs of the community. Unfortunately, with the regulations of mandatory vocational training have come the side effects of bureaucracy. Whatever happened to those far off entrepreneurial days when personal enthusiasm for general practice meant that we talked about helping others to learn rather than teaching them? Organisation is needed and standards should be set to be high, but we risk throwing the baby out with the bath water if in so doing the system becomes inflexible.

(2) Does the training programme suit which you are concerned education as well as training?

What is happening in vocational training? Variety is said to be the spice of life. If this is so then vocational training must be highly flavoured! The questionnaire sent to all trainees before the conference in Exeter in 1980 found "substantial and statistically highly significant differences between the regions in 51 out of the 59 questions on the questionnaire." They concluded that "there are regional factors which are more important than the characteristics of individual trainees in determining the arrangements for training."⁴

(3) Has the infinite variety in the local arrangements of vocational training answered for good educational reasons?
If the answer is no, as seems likely, then:

(4) How can those responsible for the development of vocational training encourage flexibility without licence?

There are currently about 2000 trainees working in general practice of whom about 50% do their own self selected rotation. The demand for places on training schemes is great. The results of a recent study showed that there were 20 applicants for each post but paradoxically they also showed that successful applicants in Trent had averaged fewer than five applications and 41% had made only one.* For the best of motives course organisers have been tempted to publish their criteria for selection. More recently the methods used in the North West Region have been discussed in the *BMJ*.⁷ Despite the good results, as measured by multiple choice questions, obtained by successful trainees, not all would agree that this method of regional preselection by examination is the way ahead, and the annual conference of local medical committees recently rejected this concept. All schemes, however, must be careful to have their own criteria, agreed by all concerned, which are designed to select those who have an aptitude for general practice.

(5) Does it matter that the selection process for formal schemes is moved under by a mass of applicants?

The Advisers Working Party also found that nearly half the schemes did not have application forms or prospectuses.⁸ It seems that not only are doctors applying for schemes in great numbers but that many of them know little about the objectives of the course that they seek to join. The organised bureaucracy of a selection process such as the Universities Central Council on

Admissions (UCCA), however, is sought neither by the applicants nor by the organisers.⁹

(6) Should enough vacancies be created to meet the demand for places?

This may seem superficially attractive to those trying to fight their way into a job, but it is fraught with danger. If more trainees and hospital posts were suddenly made available (with the likely consequence of a reduced standard of job on offer) what would happen when this cohort of doctors tried to find jobs as principals in three years' time? The number of trainees currently in training practices (allowing for those who will not seek to become principals straight away) are roughly equal to the expected vacancies through death and retirement plus the expected annual increase of 2% in the number of principals, although there is a shortfall between the total number of trainees in post and those who apply for a certificate of prescribed or equivalent experience from the Joint Committee. Short of a massive increase in resources it seems shortsighted to encourage anything other than a gradual expansion of posts (both in hospital and general practice) to meet specific needs and allow for greater flexibility.

(7) Should not course organisers be expected to describe in detail the aims as well as the methods of the course they are running?

Only then will prospective applicants be able to look for a programme that meets their own needs. Until such explicit benefits are described for a course any attempt to assess the effectiveness of vocational training (other than by taking and passing an exam) will be likely to fail.
The list of hospital posts considered by the Joint Committee for Postgraduate Training in General Practice as suitable for either "prescribed" or "equivalent" experience is long but what is to be accomplished by the two years at the level of senior house officer? Jobs must be educationally approved and this has been taken as meaning that the relevant royal college has inspected and agreed that the post is appropriate for higher training in that specialty. The Joint Committee has worked hard and largely successfully in encouraging the "other" colleges to allow general practice to be represented on their visiting panel. But:

(8) Because a post is suitable for higher training for a hospital specialty, is it automatically appropriate as preparation for a career in general practice?

Though most trainees are "pleased" with the rotation they are on, they are not always convinced that the teaching they receive is relevant to their career, or even that their consultant is aware of what that career is.¹⁰ The results from the questionnaire sent out to all trainees before the 1980 conference in Exeter showed that there were considerable variations in the rotations being offered to trainees. Whereas this may have improved since 1980, it is likely that the unmet need for obstetrics and paediatric jobs in some regions still persists. Thus it seems that "the structure" is saying that it doesn't really matter what you do in a hospital within the very broad guidelines for as long as it takes two years. If this is true it begs the question:

(9) What is the purpose of the two years in hospital?

If the hospital part of the rotation is designed to do any more than allow for maturation it should be possible to say in what way trainees ought to be different as a result of this experience. A simple statement of the knowledge, skills, and attitudes to be acquired, and attitudes to be developed could be made for each post in each scheme. This would be a time consuming task for someone but it is surely necessary if doctors in training are to continue to spend two years as senior house officers in "educationally approved" posts.

All trainees, whether on a one or three year programme, are encouraged to attend day release courses. But, as Oswald found, they are very variable in both content and organisation and are also liable to some problems.¹¹ Trainees on one large and efficiently run scheme which is well resourced with experienced

is still a great problem in the United Kingdom, however. Between the years 1971 and 1980, despite immunisation being available, there were still 1 255 800 cases notified in England and Wales.¹² Yet it seems that it is not considered to be a serious disease either by the general public or, indeed, by some health service staff.

In the UK one child in every 5000 notified as having measles died, four in 1000 develop central nervous system complications,¹³ and 1.2 in 1000 develop encephalitis.¹⁴ Figures published by the World Health Organisation also indicate that in the US, one child in 3000 reported cases of measles dies and one in 2000 develops encephalitis.¹⁵ As in the UK, middle ear infections and bronchopneumonia are frequent complications of the disease. Variations in the apparent rates of complications between the US and the UK may be due to the differences in the level of disease notification, as this alters and denominator in the calculation of complication rates.

In the US measles vaccine has been licensed and used since 1963. By 1981 over 130 million doses of vaccine had been given and the incidence of measles had been reduced greatly from that before the vaccination programme was implemented.¹⁶ The vaccine has an excellent safety record as regards side effects and adverse reactions.¹⁷ But in England and Wales the rate for measles vaccination remains around 50%, with a drop from 8.1 per 1000 average annual rate of measles cases per 1000 of population in the years 1961-70 to 2.64 cases per 1000 for the years 1971-80.¹⁸

In 1983 the World Health Organisation reported that: "Experience to date indicates that measles elimination is technically feasible and that successful strategies will include at least three elements: (a) Achievement and maintenance of high immunisation levels (currently in excess of 90%). (b) Effective surveillance. (c) Aggressive response to cases."¹⁹ In stark contrast is the fact that in the Southern Health and Social Services Board the vaccination rate is only 8%, and the incidence of measles has remained high and unchanged over the past 10 years, since the formation of boards in Northern Ireland in 1973.

This study was designed to show that measles consumes considerable financial resources which may be saved by an effective immunisation programme, as has been shown in the US.²⁰

Methods (table)

The Southern Health and Social Services Board covers a mainly rural area in Northern Ireland. The population is 267 000 and general practitioners have an average number of 1730 patients on their lists.

Number of cases of measles notified related to number of vaccinations done in the Southern Health Board 1974-82

Year	No of cases notified	No of vaccinations (aged population 15-24 years)
1974	287	251
1975	1550	230
1976	54	120
1977	1311	175
1978	228	203
1979	1299	266
1980	1270	266
1981	120	266
1982	110	266
Jan-June 1983	1021	266

There are three towns with populations over 20 000 and three with populations of 10 000-15 000. There are 55 186 children under 10 years of age (21% of the population) in the area, which is subdivided into three geographical units of management: Armagh/Dungannon with 90 500 population, Craigavon/Banbridge with 101 900 population and Newry/Mourne with 74 400 population.

There are 156 general practitioners in the area providing general medical services from 72 practices, which range from single handed to one group of six. There are 14 health centres with group practices or

single handed doctors. Some doctors and some group practices provide services from their own premises or homes.

To assess the consequences of the recent measles outbreak the period from 1 January to 30 June 1983 was chosen because it is difficult to say clearly when an epidemic begins and ends. The costing was considered under two headings: implications in general practice, and implications for hospital services: (i) general group—within area and outside area; (ii) severe group.

IMPLICATIONS IN GENERAL PRACTICE

The level of notification during the study period did not reflect the incidence of disease indicated by, for instance, school absences. The clinical medical officers in the school health service were aware of absence rates in high school owing to measles. In primary schools as many as half of the pupils in some classes and one third of the total population were noted to be absent for some days. The notification patterns of general practitioners were examined to see why they did not reflect the level of disease indicated.

The results of an associated study showed that during the 18 months from January 1982 to June 1983 (including the costed period) 83 (53%) of the general practitioners in the area did not notify a single case of measles or any of the 26 other statistically notifiable diseases. Only 17% of the general practitioners notified regularly and in a reasonable time period (10 days).²¹ The notification rate per head of population for these 17% of practitioners was then applied to the total population of the area to estimate the number of cases of measles that should have been reported. This was considered reasonable since the number of cases actually reported and the evidence from the schools indicated that the three geographical units of the area had been equally affected by the epidemic. Roughly a quarter of the patients treated during the epidemic had to be seen again and this has been included in the costing.

IMPLICATIONS FOR HOSPITAL SERVICES

(i) General group

The number of children admitted to the three paediatric units in the area and to the regional infectious diseases hospital during the six month period was noted. Average durations of stay of one week for hospitals in the area and of 10 days in the regional hospital were calculated from the data on admission of the 100 patients admitted. These were applied to the hospital unit costs for each of the hospitals as supplied in the analysis of running costs provided yearly by the Department of Health and Social Services.²² No readmission for complications arising from measles were taken into consideration owing to difficulties in definitely associating them with the original diagnosis of measles.

(ii) Severe group

In addition to the children already covered above, four other residents of the Southern Board were hospitalised with severe measles encephalitis, two in the area and two at the regional hospital. One child required mechanical ventilation. All four were normal mentally and physically but all developed electroencephalographic changes, two of whom the changes have persisted. All of the children had severe neurological signs which included convulsions, ataxia, hypotonia, flaccid paralysis of all four limbs, aphasia, and dysarthria. Two remain on treatment with anticonvulsant drugs.
The ages of the children ranged from 10 months to 4 years at onset. Of the three who were within the age to have received measles vaccine, the parents of two were unaware that it was available. Two children continue to be seen at paediatric outpatient departments or the child development clinic, and behaviour problems have continued in two for more than six months. Despite this grave picture, all of these children have improved more than the medical staff thought possible. Indeed, it was thought that one of the children might not survive.

COSTING PREVENTIVE SERVICES RELATED TO MEASLES

In the Southern Board approximately 5500 children are born each year. The cost of a dose of measles vaccine is £1.32. Vaccinations are performed by both clinical medical officers and general practitioners.