PRACTICE OBSERVED

Practice Research

Lessons learned from a course for practice nurses

A K ROSS

The number of nurses employed in general practice in England and Wales has increased considerably in recent years[1] and there is evidence that these nurses are doing more and more work.[2] We do not, however, know much about the range of experience and special skills they bring to their job and even less about how effectively these are used or new skills are acquired.[3] The refresher courses that are run for health authority community nurses are theoretically open to nurses employed by family doctors, but practice nurses have few opportunities to join such courses, which in any case are not always relevant to their work. In the past few years the need for specific training for treatment-room nurses has been recognised.[4 5] A course for practice nurses financed by the King's Fund was described by Gibson,[6] and Mourin[7] defined the role of the practice nurse and described the content and evaluation of a course he organised.[8] Representatives of the Royal College of General Practitioners, the panel of District Nurse Assessors, the Health Visitors' Association, and other bodies are now considering a syllabus of training for treatment-room nurses.

Methods

At the suggestion of the Staffordshire Local Medical Committee a questionnaire was sent out in 1979 to all known practice nurses in the area asking them if they would be willing (*a*) to participate in an in-service day-release course, and (*b*) to say what subjects they would like in the programme. Twelve questionnaires were sent out and all were completed and returned. Using the answers I framed a list of objectives (table I) and devised six one-day programmes that were held weekly (table II) in this department. I had wanted to limit the number of attenders to 24 but received 52 applications, and finally 28

Department of Postgraduate Medicine, University of Keele, Staffordshire
A K ROSS, MB, FRCGP, senior lecturer in general practice

TABLE I—*Course objectives*

The practice nurse shall demonstrate her increased knowledge of:
(1) The role of members of the primary health care team, including terms and conditions of service
(2) Immunisation procedures
(3) Common skin, ear, nose, and throat, and eye conditions
(4) Dressings, applications, and equipment available to her
(5) The proper methods of collecting and handling laboratory specimens
(6) Common problems associated with the taking of tablets and medicine
(7) The purpose and functions of "special" clinics
(8) The medicolegal aspects of her job

The practice nurse shall demonstrate her increased awareness of the importance of:
(9) Interviewing skills
(10) Interpersonal relationships in her work
(11) Health education in the context of her work
(12) Being properly trained for her various duties

TABLE II—*Course programme*

	Subjects	Session leaders/lecturers
Day 1:	Introduction to course	Course organiser and community nurse tutor
	Practice nurse's role	
	Equipment and dressings	Accident unit staff
	Collecting and handling laboratory specimens	Consultant microbiologist and staff
Day 2:	Pharmacology for nurses	Consultant pharmacologist
	Ear, nose, and throat problems ..	General practitioner
	Immunisation and vaccination ..	Consultant in infectious diseases
Day 3:	Health education	2 health education officers, course organiser, community nurse tutor
	Skin problems	Nursing officer, dermatological and medical unit, and staff
Day 4:	Primary health care team	Health authority district nursing sister, health visitor, social worker, midwife
	Medicolegal aspects of the practice nurse	Nurse adviser, Royal College of Nursing
Day 5:	Interpersonal relationships	Lecturer in social work
	"Special" clinics	3 health visitors, practice nursing sister
Day 6:	Eye conditions	General practitioner
	Nurses' choice (skin rashes)	Consultant in infectious diseases
	Evaluation of the course	Course members

nurses from 27 practices were accepted. All the participants were asked to complete the following forms to obtain information on their varying roles and to evaluate the course.

PERSONAL DATA QUESTIONNAIRE

The personal data questionnaire requested information on age, qualifications, experience, place of work, and other details.

PATTERN OF WORK

Questionnaire on frequency of work—Each nurse was asked to indicate opposite each of 62 clinical activities her estimate of how frequently she was concerned in that procedure. The 62 activities were subsequently grouped into those that were regarded by the majority (arbitrarily defined as 70%) as either a regular part of their duties or little or no part.

Amount of time spent—The nurses were asked to estimate the amount of working time (as a percentage of the working hours per week) that was spent in different activities.

Five-day diary—This provided a record of what the nurses did and how often they did it over five consecutive working days. The activities were classified into clinical, people and organisations contacted, and administrative and managerial activities.

TESTS GIVEN BEFORE AND AFTER THE COURSE

I evaluated the course by setting the nurses a test paper, immediately before the first and after the last session, which covered all the sessions and had 69 statements on various aspects of their work, each requiring a response of true, false, or don't know. Each group of statements was approved by the appropriate session leader, who was asked to include information about the statements in his or her teaching. Here are four examples:

(1) Midstream urine samples may be kept overnight in the refrigerator before being despatched for culture of organisms.

(2) Skin scrapings (for fungal identification) need special transport media.

(3) Any patient who has developed a rash during treatment with ampicillin must be considered allergic to the penicillin group of drugs.

(4) Conjunctivitis usually affects both eyes.

The nurses were not told beforehand how the tests would be scored. After the course each nurse received by post her own test scores with the group average and group range.

COURSE EVALUATION GRID

At the end of each day the course members used a six-point numerical scale to score each session of the day's activities on the criteria of enjoyment, new facts learned, and their relevance. On the last day the nurses were put into small groups without appointed leaders and asked to collate their criticisms of the course; appointed reporters gave the consensus opinion at a final session.

Results

The nurses came from a wide geographical area, and travelled an average round trip of 68 miles to the course each week. The attendance over the six weeks was 94%. The average age of the nurses was 40 years; 26 (93%) were State registered nurses (SRNs) and two (7%) were State enrolled nurses (SENs); five held the SCM certificate; 18 were members of the Royal College of Nursing. Two had recently been appointed to practices but had not yet taken up their posts, and so did not complete the questionnaires (or the questions on their pattern of work). The practice work experience of the remaining 26 averaged four years and the average working week was 21·4 hours; 16 worked more than 22 hours a week. Only three nurses had attended a course or had had in-service training, though between them they had attended nine separate sessions or clinics. The 27 practices had an average of four doctors, 2·5 health authority nurses, and 1·75 practice nurses. Table III (a) and (b) show what the nurses were doing most often and least often, and table IV how long they spent. The five-day diary confirmed what the other questionnaires showed.

TABLE III—*Activities nurses were concerned in most often and least often*

(a) In each of the following activities at least 70% of the 26 nurses were concerned regularly *or* frequently:

Applying dressings	Completing laboratory request cards
Treating leg ulcers	Venepuncture
Treating minor wounds and injuries	Hypodermic and intramuscular injections
Removing skin sutures	Supervising sterilisation equipment
Syringing ears	Supervising surgery stock dressings etc
Testing urine	Giving desensitising injections
Taking blood pressures	Giving immunisation injections
Using an auroscope	Supervising collection and transport of laboratory specimens

(b) In each of the following activities at least 70% of the 26 nurses indicated that they were never concerned *or* not available:

Suturing	Fitting vaginal diaphragms
Testing vision	Teasting hearing
Estimating haemoglobin	Responsibility for dangerous drugs on premises
Using peak flow meter	Checking and replenishing doctor's bag
General nursing care (chronic)	Applying splints or plaster of Paris
Giving enemas	

(c) Concerned in "special" clinics (n = 26)

	Never	Not available or not applicable
	No (%)	No (%)
Hypertension	23 (88)	10 (38)
Contraceptive	17 (65)	6 (23)
"Well-woman"	23 (88)	8 (31)
Diabetic	26 (100)	9 (35)

TABLE IV—*Estimated percentage of total number of hours worked by 26 nurses*

Clinical areas	40%
Extension of clinical skills (venepuncture, cervical smears, aural toilet, etc) ..	28%
Advising/consulting/teaching	12%
Administration/clerical	12%
Liaison	3%
Health education	1%
Others	4%

The group scores on the tests that were given before and after the course are given in table V, which indicates two scores for each test, one the number of correct answers and the other (the "penalised score") the score achieved when a point was deducted for each wrong answer. The nurses improved their scores in all the subjects taught on the course, but most in their knowledge of eye conditions (improvement from 50% before the course to 86% after it) and of laboratory work (up from 46% to 82%). The evaluation grid scores are given in table VI.

TABLE V—*Scores for pre-course and post-course tests taken by 28 nurses. Group average correct scores (69 = 100%)*

	Pre-test score		Post-test score	
	Score (%)	Penalised score (%)	Score (%)	Penalised score (%)
	41·4 (60)	22 (31)	52 (75)*	35 (51)*
Range of group scores:	29–53 (42–77)	5–40 (7–58)	42–59 (51–86)	15–49 (22–71)
Standard deviation:	6·20	8·67		

*Using paired *t*-test: p $\leqslant$ 0·001.

TABLE VI—*Evaluation grid scores (6 = maximum score)*

	Enjoyment (%)	New facts (%)	Relevance (%)
Average rating per session	5·3 (88)	4·9 (82)	5·3 (88)
Range of average scores for all the sessions	4·3–5·8 (72–97)	3·9–5·8 (65–97)	4·2–5·8 (70–97)

Most of the nurses agreed that too little time had been allocated to the visits to the hospital departments. They expressed their concern about the problems and risks they encountered at work, especially in pharmacology, immunisation, and medicolegal situations. They least liked the sessions on health education and the primary health care team.

Discussion

As anticipated, the nurses attending the course showed a wide variation in experience and training. Their criticism of inadequate time allocated to the hospital visits was justified; it was difficult, however, to arrange for 28 people to visit a hospital unit that was trying at the same time to give a normal service.

It was surprising to learn that 23 nurses did not do haemoglobin estimations, and that 13 did not have a haemoglobinometer to use. Twenty had also never used a peak flow meter and nine (35%) said that the instrument was not available. In contrast, 11 used an electrocardiogram, seven regularly. The large number of desensitisation injections recorded was surprising, even allowing for the fact that the diary was kept in November.

Despite published evidence showing the value of home visiting by a practice nurse[9] 10 nurses indicated that home visiting was never part of their work. Only 13 regularly took cervical smears and 10 never, and only a few worked in hypertension, contraceptive, well-woman, or diabetic clinics in their practice. It may be that the employing doctors did not put much value on such clinics, but there is evidence that other workers such as health visitors are used.[10] The concept of a primary health care team meeting regularly was not supported by the evidence from the five-day diary, which showed that over five days only 29 contacts were recorded with other members of the team by all 26 practice nurses.

Several participants said that they liked being able to identify what they had learned by completing the pre-course and post-course tests, though these procedures were used to evaluate the course and not the nurse. The improvement in scores in the various sessions is not strictly comparable; nevertheless, the two largest improvements in scores were in sessions that took place on the first and last days.

The high scores recorded in the evaluation sheets presented at the end of each day might have been inflated by the natural reluctance of the nurses to criticise or seem ungrateful, together with the obvious enjoyment produced by their meeting, often for the first time, colleagues of different experience and abilities in a situation where they were encouraged to express their views.

Conclusions

This study shows clearly the wide range and quality of duties undertaken by practice nurses and underlines the problems facing those who plan the continuing education of this group. The following six suggestions for future courses are offered for consideration:

(1) Numbers should be kept low—say, a limit of 16—to enable practical demonstrations to be organised more easily and to encourage discussion.

(2) Induction courses for potential and newly-appointed nurses should be held.

(3) Specialised courses should be organised for those wishing to extend their clinical activities—for example, ECGs, cervical smears, vitalography, etc.

(4) Refresher courses should be held yearly as for district nursing sisters.

(5) Although day-release extended programmes are probably most popular, particularly with married nurses, residential courses should be considered for those working in outlying areas.

(6) Responsibility for the adequate financing of such courses must be accepted by the Department of Health and Social Security. Courses specifically arranged for practice nurses are now largely excluded from the reimbursement scheme.

I thank Mrs M Jones, tutor in community nursing, for help and support in organising the course; the Staffordshire Local Medical Committee for financial contribution; Mr K M Lloyd, administrator of Staffordshire Family Practitioner Committee, for his sympathetic interpretation of financial regulations; and all the nurses who attended the course for their forbearance and co-operation in completing so many forms.

References

[1] Reedy BLEC, Philips PR, Newell DJ. Nurses and nursing in primary medical care in England. *Br Med J* 1976;ii:1304-6.
[2] Waters WHR, Sandeman JM, Lunn JE. A four-year prospective study of the work of the practice nurse in the treatment-room of a South Yorkshire practice. *Br Med J* 1980;280:87-9.
[3] Waters WHR, Lunn JE. 102 886 treatment-room procedures: implications for nurse training and item-of-service payments. *Br Med J* 1981;282:1368-70.
[4] Hasler JC, Greenland AS, Jacka SM, *et al*. Training for the treatment-room sister in general practice. *Br Med J* 1972;i:232-4.
[5] Leiper NK. A course for practice nurses. *J R Coll Gen Pract* 1975;25:537-42.
[6] Gibson S. *A report on a pilot course for practice nurses held at the University of Surrey*. Prepared for the King's Fund, 1980.
[7] Mourin K. The role of the practice nurse. *J R Coll Gen Pract* 1980;30:75-7.
[8] Mourin K. A practice nurses' course—content and evaluation. *J R Coll Gen Pract* 1980;30:78-84.
[9] Weston Smith J, O'Donovan JB. The practice nurse—a new look. *Br Med J* 1970;iv:673-7.
[10] Garvie DG. Diabetes mellitus: care in general practice. *Geriatric Medicine* 1981;11:46-51.

(*Accepted 22 June 1981*)

ONE HUNDRED YEARS AGO A man, aged 69, was admitted on March 14th, 1881, suffering from retention of urine. He said he had been unable to pass urine in any quantity at a time for several weeks, and that it was constantly dribbling away from him. On admission, his bladder contained two pints of bloody urine, of an acid reaction, having a specific gravity of 1010, and containing albumen; but only revealing blood-cells under the microscope. On passing the finger into the rectum, the prostate could be felt to be enlarged, and was somewhat tender on pressure. There was considerable anasarca. He was ordered a milk-diet, 30 grains of compound jalap powder every morning, and a mixture of perchloride of iron three times a day; a catheter was to be passed twice a day. A few days later, the catheter was ordered to be used three times daily. In four days after admission, the dropsy had all disappeared—revealing, what was not evident before, great emaciation. The dribbling of the urine was as bad as ever—owing, however, not to the bladder being over full, but to its inability to retain any urine. There was a peculiar grating experienced each time on using a catheter coudé, as it passed through the prostate, as if it were rubbing against a calculus. On March 23rd, he was ordered a mixture of acetate of potash, hyoscyamus, and camphor water. About this date, it was suggested that it was not a case of simple enlargement of the prostate, but probably malignant disease. Death took place on March 27th.

On March 29th, a *post mortem* examination was made. The kidneys, bladder, and portions of the penis were removed together. The bladder was generally thickened, and the mucous lining much congested; the prostate was very hard, and a section showed that it consisted of one mass of scirrhous deposit, which extended outwards and backwards into the wall of the bladder; the growth reached up to the orifices of the ureters, quite obliterating the opening on the right side, and partially constricting that on the left side. Both ureters were dilated and stretched, but the coats were in no way thickened; both were so distended with urine as to look like small intestine. The calyces and pelvis of the right kidney were distended with urine, and so compressed the body of the kidney as to virtually convert it into one large cyst, which was not so large as the left kidney. The latter was much enlarged, somewhat distended with urine, and had a small abscess in the lower half of the body of the kidney. There was also an abscess in the suprarenal capsule. The other organs of the body were healthy, except the right lung, which was bound down by adhesions, the result of an old pleurisy. No other cancerous deposits were found in any other part of the body. (*British Medical Journal*, 1881.)

Unemployment in My Practice

Liskeard

GEOFFREY SMERDON

We pay lip-service to unemployment but do we really believe it? We hear stories of scroungers and jobs that no one wants, so perhaps it is not that bad and will go away soon. The pain of it begins to be real when we see respected tradesmen, never out of work before, ashamed to face the dole queue. Maybe it will need unemployed doctors, home-trained at that, before we appreciate the value of our job security and job satisfaction. Meanwhile, the country is in danger of losing a young generation as surely as one was lost in 1914-18, but this one won't stay buried.

Take Bill R, for instance, who always wanted to work in the slaughterers and used to go out there when he was still at school. They took him on permanently, and his cut hands always seemed to get infected. Nine years ago he caught brucellosis and, despite antibiotics, drifted into a low-grade chronic infection. He was advised to give up work at the slaughterers in case his attacks of fever and malaise were allergic reactions to re-exposure rather than relapses. He has never had a steady job since: several semiskilled garage jobs folded with the firms, the rehabilitation officer noted his "above average motivation and ability," and he did a TOPS course in lathe work, but by then the jobs had vanished. He is 30 now, with a family, feels he is on the scrap-heap, and is worried about the future for his children. The physician, whom he sees annually, suggests antidepressants, and he himself had tried alcohol to the extent of depressing his liver function. But warnings—or lack of money—saved him from this solution. The divisional medical officer has accepted that he is unfit for work, but the problem is really that there is no work for someone with his restricted abilities.

What have we to offer him? Work will be a privilege, some social thinkers have declared. The State will keep us from starvation, and we must find satisfaction elsewhere. I tried: what about voluntary work—he wasn't much interested in the elderly. Pity he couldn't use his lathe work training. They have lathes down at the adult training centre—yes, he would like that; he has a nephew with Down's syndrome. He went off with the name of the director, happier than I have seen him for a long time. It may well come to nothing but at least he has an idea, and a little hope, and I felt better too. Physical, psychological, and social can't be separated, and that taunt about general practitioners being signposts never worried me—it is an honourable function.

We are employers, too

It set me thinking though. We are employers as well as doctors, and fortunate in that the cost-effectiveness of primary care has become appreciated in time to spare us, so far, from the cut-backs. Everyone of us can employ two ancillary workers at little cost by the time our 30% has been set against tax, yet on average we employ only one. Surely we have a duty to society, our patients, and ourselves to take full advantage of this provision.

We have just finished structuring the notes in our practice—simply tagging the letters and continuation cards in chronological order. The benefits of this simple manoeuvre are remarkable: irritation is reduced, and it is beginning to be possible to extract information that was previously quite inaccessible. We now wonder how we ever coped with our previous muddle, and there is a small but clear saving of doctors' time. Of course there is an investment of ancillaries' time to do the job. The fat envelopes that need sorting out most may take an hour each, but on average our staff processed about eight an hour. It is a simple job and can be taught to a competent school-leaver in half-an-hour with some subsequent supervision to answer questions. Even a temporary job can give a young person some self-respect, a bit of money to ease the social contacts that are so important at that age, and a piece of paper to say that they had a job and did it well. You may even get to like them and decide you need an age/sex register.

Liskeard, Cornwall PL14 4AQ
GEOFFREY SMERDON, MB, FRCGP, general practitioner

Picture of a surgery

Our surgery, my father's and mine, for most of my working life was an old shop. The dispensing was done over the shop counter. When I was a child I would climb up from the cellar below to appear through a trap door in the waiting room floor among the patients. When I became a doctor I tried to provide some different entertainment for the patients.

In 1961, to embellish the lives of my waiting patients and my own, that of a six-minute doctor, I decided to make the waiting room into an art gallery. I commissioned some children's paintings. We had 72 in all, painted by or drawn by children aged from 4 to 15 years, and each child was paid one shilling. Fortunately for the children (but unfortunately for those who died) there was a smallpox epidemic, and we were able to provide the artists with an audience of over 4000 people who came through the surgery to be vaccinated.

Since 1973 we have been working at a beautiful health centre, and there also we have had a series of art exhibitions from the local girls' comprehensive school and the infant school where I started my education. Today the waiting rooms exhibit works by the Aberdare Art Society. We also have concerts given by a small school orchestra to an audience of people waiting to see the chiropodists, the two psychiatrists, and three general practitioners. There are no divisions, no isolating influences at work to separate off the mentally ill. There are simply people sitting together, listening to music, and looking at pictures. The doctors', nurses', and chiropodists' rooms and the passages also have posters by Leonardo, the French Impressionists, Van Gogh, Vermeer, and also by the Breughels, father and son, including one showing children playing with hoops and tops.—ALISTAIR WILSON, general practitioner, Aberdare, Mid-Glamorgan. Dr Wilson died recently.

We will be pleased to consider for publication other interesting observations from general practice.—ED, *BMJ*.