A critical incident study of general practice trainees in their basic general practice term

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Objective: To obtain information on the experiences of general practice (GP) trainees during their first general practice (GP) attachment.

Design: Critical incident technique — a qualitative analysis of open-ended interviews about incidents which describe competent or poor professional practice.

Subjects: Thirty-nine Western Australian doctors from the Royal Australian College of General Practitioners' (RACGP) Family Medicine Program who were completing their first six months of general practice in 1992.

Results: Doctors reported 180 critical incidents, of which just over 50% involved problems (and sometimes successes) with: difficult patients; paediatrics; the doctor-patient relationship; counselling skills; obstetrics and gynaecology; relationships with other health professionals and practice staff; and cardiovascular disorders. The major skills associated with both positive and negative critical incidents were: the interpersonal skills of rapport and listening; the diagnostic skills of thorough clinical assessment and the appropriate use of investigations; and the management skills of knowing when and how to obtain help from supervisors, hospitals and specialists. Doctors reported high levels of anxiety over difficult management decisions and feelings of guilt over missed diagnoses and inadequate management.

Conclusion: The initial GP term is a crucial transition period in the development of the future general practitioner. An analysis of commonly recurring positive and negative critical incidents can be used by the RACGP Training Program to accelerate the learning process of doctors in vocational training and has implications for the planning of undergraduate curricula.

Methods

In 1992, 45 FMP doctors were undertaking their basic term (first six months) in supervised general practice. Our project was explained by letter and follow-up phone call; anonymity was guaranteed. Two doctors declined to participate and a further four were not interviewed because of repeated logistical difficulties.

One week before their interview, FMP doctors were again contacted by phone and reminded to try to recall events from their GP term which had been positive and made them feel good or competent, and events which were negative and had made them feel incompetent or unhappy with their performance. Interviews lasted 1–1.5 hours, beginning with a general question about the trainees’ opinions of the FMP and moving on to anecdotes about positive and negative incidents.

Because interviewing FMP doctors towards the end of their GP attachment imposed time constraints, all four authors acted as interviewers. Two were female GPs, who had graduated seven years previously, with experience in cross-cultural and psychiatric interviewing and a demonstrated interest in medical education; one was a senior male academic general practitioner; and one a male clinical psychologist with 10 years’ experience of working with doctors. All had worked together for the
1: Example of a critical incident classified according to the seven chosen categories

Description of incident: A 40-year-old businessman attended the surgery with chest pain. He was the last patient for the day and the doctor was feeling rushed as she had to pick up her daughter from child care. She performed an electrocardiogram which looked normal and this was confirmed by her general practice supervisor. The patient was told he had not had a heart attack but if the pain persisted at night to ring for a coronary care ambulance. The pain did persist but the patient did not ring for an ambulance. He arrived without appointment the following morning. The cardiac enzyme levels in blood taken the night before were markedly raised.

1. System
Cardiovascular.

2. Problem
Chest pain.

3. Skill
Early diagnosis of a serious problem; appropriate interpretation of investigations.

4. Attitude
Fear of missing a life-threatening condition; preoccupied by domestic issues; feeling pressured for time.

5. Why was the incident “critical”?
Missed a potentially life-threatening condition.

6. Why was the trainee’s behaviour right or wrong?
Lack of knowledge about sensitivity and specificity of electrocardiogram in acute myocardial infarction; inappropriate plan of action — not thought through; did not manage time well.

7. Moral
Need more training in emergency skills; need to develop better time-management skills.

previous year and the first three were well known to the FMP doctors and had good rapport with them.

The interviewers took shorthand notes which were used, immediately after the interview, to dictate the full version of each critical incident onto tape. The first ten interviews were also tape recorded, but some FMP doctors were unhappy about this. As the information obtained from transcripts of the tape recordings was little different from that obtained from transcripts of the notes, we decided to use the latter method. The four authors acted as the expert panel for classifying critical incidents. In keeping with the approach recommended by Flanagan the process of classification was an evolving one, with key words or themes extracted from the incidents. It became apparent that there were recurring themes and these guided the development of a more structured approach to incident classification. The final framework was an adaptation of the categories used by Waterston. An example of an incident classified within this framework is given in Box 1. As a final check of consistency, the total incident pool was reviewed and all the incidents were reanalysed jointly by two of the interviewers (M D and M S).

Results
Of the 39 who were interviewed, 29 graduated in Western Australia, four in New Zealand or other Australian universities, four in the United Kingdom/Eire and one each from Africa and India. There were nine men and 30 women, with a mean age of 29.1 years (SD, 3.5) and a mean time since graduation of four years (SD, 1.9).

One hundred and eighty incidents were reported, an average of 4.6 per doctor. A complete list of classified incidents is available from the authors. Here we summarise the main findings.

Skills
The list of skills involved in our collection of critical incidents is long and detailed, but some, important in both favourable and unfavourable incidents, appeared frequently and are listed in Box 3.

2: Systems and problems most commonly involved in critical incidents

Difficult patients (35)
Angry patient (6)
Anxious mother (5)
Direct request for antibiotics (4)
Direct request for narcotics (4)
Paediatrics (23)
Viral illness (3)
Developmental problems (3)
Doctor–patient relationship (18)
Expectation differences (9)
Counselling (17)
Crisis intervention and support (5)
Unplanned pregnancy (3)
Couples counselling (3)
Obstetrics and gynaecology (17)
Menopause/hormone replacement therapy (4)
Threatened abortion (3)
Relationships with others involved in care (17)
Obtaining help from colleagues (6)
Conflicts with practice staff (4)
Cardiovascular (16)
Cardiac failure/chest pain (5)
Hypertension (4)
In diagnostic skills, the subskill of conducting a thorough clinical examination (including taking a thorough history) was of importance in 50 reported incidents. In the 37 favourable incidents, performing a thorough clinical assessment had usually enabled the FMP doctor to make a diagnosis that he or she might otherwise have missed, or which had previously been overlooked by another doctor. In the 13 unfavourable instances where a thorough history and examination were critical, the FMP doctor had acted hastily as a result of feeling pressured for time, or had reached premature closure in his or her diagnostic reasoning. An example of this arose when an elderly diabetic patient who spoke poor English came to the surgery complaining of feeling unwell. Failure to clarify the patient’s main complaint by taking more time or using the telephone interpreter service diverted the doctor from performing a thorough clinical examination and thus led to him overlooking a malignant abdominal mass.

In the case of interpersonal skills, establishing rapport and non-judgemental listening were most commonly reported in conjunction with favourable incidents, while the most common unfavourable incidents involved failure to take sufficient time to understand the patient’s point of view (particularly when it might conflict with the doctor’s values or beliefs), or to explain matters to patients and to check that the patient understood the explanation, and failure to give patients time in which to talk about their problems. In these situations, minor tensions at the beginning of a consultation were likely to escalate into more direct conflict between doctor and patient. An example of this was when an obese patient, who was normally cared for by another doctor, requested a repeat prescription for an appetite suppressant. By immediately focusing on the narrow issue of the patient making a direct request for a repeat prescription which the doctor did not usually prescribe, too little time was devoted to understanding the patient’s viewpoint and to explaining why the doctor was unwilling to comply with the request.

**Morals**

Box 4 shows some of the “morals” drawn by the trainees themselves from the recorded incidents. In only a few cases did we alter the moral from the one given by the trainee. For example, after a contraindicated investigation of computed tomography scan for Bell’s palsy which fortuitously revealed a berry aneurism, a doctor concluded: “It’s always worth doing investigations because you never know what you might find.” We did not concur and considered the moral rather to be one of understanding the appropriateness and cost of high-technology investigations. A total list of morals is available from the authors.

**Discussion**

The aim of undergraduate medical education in Australia is to produce doctors who can enter any form of vocational training required to reach a desirable standard for independent practice. However, the undergraduate and early postgraduate years are so heavily biased towards hospital-based medicine that it would be surprising if doctors in their first GP term did not have many difficulties with problems common in general practice but uncommon in hospital practice. Also, undergraduate assessments and examinations concentrate on factual data, physical examination and diagnosis, and may fail to detect students whose deficiencies lie in the areas of patient management, socio-
4: Common morals learned from critical incidents

Diagnostic skills
Being thorough is important.
Thoroughness takes time.
More is missed by not seeing than not knowing.
If you don’t look you won’t find.
Take maternal concern seriously.
Take recurrent presentation seriously.
Common disorders occur commonly.
Common problems can have atypical presentations.
When confronted with an unusual problem go back to basic sciences and first principles.
When the patient doesn’t get better reappraise the problem.
Time can be used as a diagnostic and management tool.
If you are not sure, look up a book or seek advice. You can’t know everything.

Consultation skills
If one needs to fill silence with words, one may not be able to hear the patient’s story.
Don’t ask leading questions.
Listening is a valuable therapeutic tool.
Don’t label patients or judge a book by its cover.
Good professionals don’t make moral judgements.
Doctors can learn a lot from their patients if they allow themselves.
Minor illness may not be serious to the doctor but can be very worrying to the patient.
It is important to take the patient’s perspective into account.

Management skills
The doctor should not take on the patient’s problems or responsibilities.
Doctors have to accept that ageing and death are inevitable.

cultural understanding and interpersonal skills with patients, colleagues and other health professionals.

FMP doctors’ most positive critical incidents resulted from being thorough, establishing patient rapport, using listening skills and initiating appropriate investigations which confirmed their diagnostic acumen. Conversely, negative critical incidents involved a failure to establish or use these skills, knowledge gaps (particularly in paediatrics, gynaecology and dermatology), the side effects of drugs and managing drug-addicted and other “difficult” patients whose consultation agendas differed from those of the doctor.

A further area of interpersonal difficulty was with supervisors and practice staff. Although these relationships were generally positive, they accounted for 8% of negative critical incidents. Doctors said they had too many patients rostered per hour, felt unsupported (especially when running the practice alone) or, conversely, felt that they were treated as if they were medical students rather than inexperienced colleagues.

FMP doctors also reported high levels of stress during their initial GP term and strong feelings of guilt over missed diagnoses. Twelve doctors reported chronic insomnia from the anxiety of thinking about patients with undiagnosed or worrying conditions, and one developed an acute duodenal ulcer.

Gaps in knowledge are relatively easy to address. Improving interpersonal and consultation skills is more difficult and requires more attention in undergraduate and hospital residency training. In addition Royal Australian College of General Practitioners’ Training Program doctors need guidelines before and during their first GP term, especially on how to handle disagreements about clinical management, supervision and support with a supervisor and practice staff.

Our study shows that, like the preregistration hospital year, the initial GP term is a crucial transition period in the development of future general practitiners.

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References

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