

Contemporary Themes

Ignoring the obvious: doctors' wives as patients

J DEARLOVE, T BATE, B DEARLOVE, P NEWMAN

Abstract

There is a widely held belief among doctors and nurses that when a colleague is in hospital, if anything can go wrong during the course of his illness it invariably will. To investigate this belief, we studied prospectively a group of pregnant doctors and doctors' wives, comparing the number of obstetric, paediatric, and psychiatric complications with those in two control groups of similar social class, race, and parity. These were teachers and lecturers and a group of State registered nurses. The occurrence of obstetric and paediatric problems was similar in the three groups. Psychiatric problems, however, were more common among teachers and lecturers ($p < 0.001$); this difference was due to the way the nurses on the postnatal wards failed to report mild psychiatric problems among doctors' wives to their colleagues. This difference was not related to the amount of preferential treatment that doctors and doctors' wives received while in hospital.

Introduction

There is a groan of apprehension among the ward staff when one of their colleagues is admitted to hospital as a patient. The tacit assumption is that not only do doctors and their wives make poor patients, but, more importantly, if anything can go wrong during their illness it invariably will.¹

There has also been interest in the medical problems of doctors, both in the way that illness presents and in the way that it is managed.¹⁻³

From our own experience in the postnatal wards we thought that doctors and doctors' wives were not only treated differently from other obstetric patients but that their management appeared occasionally inappropriate. We thought that this was more obvious within the psychiatric sphere than obstetric or paediatric. With these points in mind, we were curious to know whether doctors and doctors' wives were managed differently from other patients, and if this resulted in a better or worse obstetric, paediatric, or psychiatric outcome when compared with a control group of the same social class.

Method

We wished to compare a group of doctors and doctors' wives against a sample of similar social class² and social background. We thought it important to consider other points concerning the occupation of our control groups, despite the limitations these may have set on our conclusions. Firstly, State registered nurses (SRNs) often marry doctors (32 out of 42 in our sample of doctors' wives). So a separate control group of SRNs appeared an obvious choice. In addition, we thought it important to have a non-medical control group. Ideally, this group of women should be members of a service profession who deal with the general public. Teachers and university lecturers fulfilled these requirements well, as this would also allow direct social class comparison between doctors and lecturers. Our sample, therefore, consisted of three groups: 20 doctors, 42 doctors' wives; 78 SRNs; and 26 lecturers, or their wives, who were working within the university system until their pregnancies, and 109 teachers. These patients were collected consecutively over the past two and a half years from the postnatal wards of the hospital. The three groups were similar in age, parity, race, and marital status.

All the mothers and their babies were seen by at least one of us on the postnatal ward. We discussed the progress of each of the mothers and their babies with the nursing staff.

Paediatric problems—A record was kept of any paediatric problems needing an outpatient follow-up appointment or admission to the special care baby unit. In addition, if the baby was preterm (<37 weeks' gestation) or below 2500 g these also constituted paediatric problems.

Obstetric problems—A "natural birth" consisted of a spontaneous onset of labour, with no form of induction or augmentation. An epidural anaesthetic or an instrumental delivery were considered abnormal. An immediate postpartum problem, such as a retained placenta, was also considered abnormal. A record of the deliveries was kept and the number of natural births noted.

Psychiatric problems—Judging the psychiatric problems of our sample was more difficult. It quickly became clear that the postnatal nursing staff were reluctant to volunteer that a mother was unusually tearful or behaving uncharacteristically. Consequently, we had to rely on our own observations and specifically asking the staff about the patients and their babies. If a mother appeared to the nurses and to us as anxious, withdrawn, or acting oddly, and this was recorded in the nurses' notes or Kardex, then the patient was reported as having a possible psychiatric problem. If, however, the ward sister or obstetric house officer contacted an outside agency (the midwife, health visitor, general practitioner, or a psychiatrist) specifically about her behaviour, the mother was scored as having an actual psychiatric problem. We chose this system because it avoided inexperienced staff making specific psychiatric diagnoses but, more importantly, it reflected what actually happens in clinical practice.

As we wished to compare the obstetric, paediatric, and psychiatric problems of occupational groups that were broadly similar, we divided the sample into the three categories of doctors and their wives, SRNs, and teachers and lecturers. We then compared each of these groups with each other, such as doctors and doctors' wives, with teachers and lecturers. To compare social class with social class, we compared doctors with university lecturers and doctors' wives with teachers and SRNs (because so many of our doctors' wives had been nurses). Then we compared National Health Service (NHS) employees (doctors and SRNs) with non-NHS employees (teachers and lecturers) leaving the doctors' wives out of the analysis. NHS

Charing Cross Hospital, London W6 8RF

J DEARLOVE, FRCP(C), MRCP, senior registrar

P NEWMAN, programmer, medical computer unit

Royal Manchester Children's Hospital, Manchester

T BATE, MRCP, senior registrar

London W6

B DEARLOVE, MSC, research worker

employees from our own hospital were compared with other hospitals' NHS employees and, finally, doctors or their wives who were employed by our hospital were compared with doctors or wives employed elsewhere.

In the second part of our study we looked at the way the three groups were managed during their pregnancies and deliveries.

Rather than scoring a series of "good" and "bad" obstetric management decisions we approached the problem of patients receiving different treatment from the viewpoint of what an average mother might like from the NHS during her pregnancy. For instance, she might like to see the same doctor in the antenatal clinic, have her perform the delivery, and even stitch the episiotomy. Afterwards, the mother might like a single room and to have an experienced paediatrician examine her baby. Using these criteria we evolved a special treatment score. The following points all scored one point, and a patient's maximum score could be six. The points we used were:

(1) Being seen by the same obstetrician for most (over half) of visits to the antenatal clinic.

(2) Having some form of identification in the notes denoting to the medical and nursing staff that the patient was unusual in some way—for instance, "registrar to see" or "Call Dr X when patient is admitted."

(3) Having the same obstetrician, or an experienced one, perform a normal delivery.

(4) And stitch the episiotomy.

(5) And then the mother returns to a single room after the delivery.

(6) An experienced paediatrician examines her baby (even if normal).

If the delivery was abnormal the same principles applied; a consultant performing an emergency caesarean section or a forceps delivery was considered unusual for a well-staffed teaching hospital, and a point scored. It also meant, however, that if no episiotomy was performed the patient could score a maximum of only five points. This was why all individual scores were expressed as a percentage. As it became clear that these results were not distributed normally, comparisons were performed using a Mann Whitney U test, and levels of under 1% taken as significant.

Results

POSTNATAL PROBLEMS

A comparison of the three groups of doctors and doctors' wives, SRNs, and teachers and lecturers showed no difference in the proportion of natural births or paediatric problems between the three groups, using a chi square test of significance. There was, however, a significant difference in the number of *actual* psychiatric problems among doctors and doctors' wives compared with the lecturers and teachers (table I). This still held true when all NHS staff were compared with the teachers and lecturers and was not related to whether the doctor or doctor's wife was a member of the hospital staff.

When the *possible* psychiatric problems are included with the number of *actual* problems, however, this difference between doctors and their wives and teachers disappears. What remains is that there is a significantly greater incidence of psychiatric problems among doctors and doctors' wives compared with SRNs (table I). But this is mainly due to the officially unrecognised problems among doctors' wives. To illustrate this point about the discrepancy between the two psychiatric classifications was a careful entry into the nursing Kardex: "Mother spent afternoon praying to angels in heaven. Breasts normal. Lochia normal. Baby feeding well." Her physician husband claimed that this was a not infrequent occurrence that would resolve at home. She was discharged and follow-up consisted of two phone calls to her husband. Within our protocol she scored as a *possible* psychiatric problem as no

outside agency was directly concerned in the follow-up, despite her obviously psychotic behaviour.

SPECIAL TREATMENT

The scores for each group were expressed as percentages. As the proportion of natural births in each group was similar, the effect of compressing the score artificially because of a high rate of forceps or caesarean section deliveries is probably not as influential as we had first feared.

The scores for the three groups were compared using a Mann Whitney U test. As may be seen from table II, doctors and doctors' wives do significantly well in terms of their "special treatment score" when they are compared with nurses, teachers, and lecturers.

TABLE II—Special treatment scores

Group	Occupation	Special treatment score (%)	
		Median	Mean
1	Doctors (n=20)	81.5	76.0
2	Doctors' wives (n=42)	75.25*	66.9
	SRNs (n=64)	20.5†	28.4
3	Lecturers and lecturers' wives (n=26)	0.96	9.50
	Teachers (n=109)	16.8	17.0
1, 2, 3	Total sample (n=275)	20.4	34.3

*Doctors and doctors' wives v teachers and lecturers and lecturers' wives p < 0.001 (Mann Whitney U = 2458).

†Doctors and doctors' wives v SRNs p < 0.001 (Mann Whitney U = 3245).

Apart from the difference in the number of problems within each group, the way the problems showed themselves differed. Anxiety about the baby's feeding, tearfulness, excessive tiredness, and unexpected and persistent tiredness seemed common to both nurses and teachers. The problems that worried the doctors and their wives appeared slightly different. Three mothers who had been noted as anxious antenatally thought that their babies might be having fits; consequently their physician husbands sought a paediatric opinion, in two cases describing the normal baby as twitching or jumpy.

One angry and hostile mother actually complained that the nurses did not accord her the respect due to the wife of a doctor. Another very uncertain mother appeared confident only in front of her paediatrician husband. Clearly this did not last long, as we discovered some time later that she had sought the advice of a paediatrician within her husband's hospital about her crying baby.

Discussion

We have shown, not unexpectedly, that doctors and doctors' wives are treated very differently from other patients of similar social class, parity, race, and age. Also, they were treated differently from their nursing colleagues. Despite what could be regarded as preferential treatment, their obstetric and paediatric outcomes were no different from those in the control group of teachers and lecturers. Nevertheless, we found a significant difference in the proportion of minor psychiatric problems between the groups. Specifically, we found that the ward staff noted the difficulties encountered by their patients and then failed to pass this information on if the patient happened to be a

TABLE I—Psychiatric and paediatric problems and the number of natural births

Group	Occupation	Psychiatric problems			Total No of patients who had a natural birth	Total No of patients with paediatric problems
		Actual* (%)	Possible† (%)	Total‡ (% of group)		
1	Doctors (n=20)	1 (5)	2 (10)	3 (15)	4	9
	Doctors' wives (n=42)	1 (2)	10 (24)	11 (26)	13	8
2	State registered nurses (n=78)	4 (5)	1 (1)	5 (6)	19	10
	Lecturers and lecturers' wives (n=26)	5 (19)	2 (8)	7 (27)	7	6
3	Teachers (n=109)	14 (13)	0 (0)	14 (13)	35	22

Significance values using a chi square test for non-parametric data:

*Doctors and doctors' wives v teachers and lecturers p < 0.04 ($\chi^2 = 4.02$ with 1 df).

†Doctors and doctors' wives v teachers and lecturers p < 0.001 ($\chi^2 = 17.9$ with 1 df).

‡Doctors and doctors' wives v teachers and lecturers NS.

§Doctors and doctors' wives v SRNs p < 0.01 ($\chi^2 = 6.38$ with 1 df).

doctor's wife. Although our own assessments may have been biased because we knew the occupation of the patients, we should have influenced the results consistently, as we were testing the assumption that it was doctors as well as their wives who had more complications from their illnesses than one would expect. Similarly, one of our reasons for adopting this particular experimental approach was that we wished to cause as little disruption of normal ward behaviour as possible, so that the nurses did not know that their own notes had been used as a measure of behaviour. Because of these points, we think that we have observed a real difference in nursing and medical staff behaviour towards one group of their patients. Because of the limitations imposed by the design of our study, we conclude that this difference in behaviour is not related to social class, parity, race, or age, and may be related to the occupation of the patient's husband.

What is more intriguing is why the nursing and medical staff should view minor psychiatric problems so differently. In all three groups comments are duly made about unusual behaviour in the mothers, despite the different ways in which the problems arose. The way these problems were subsequently managed, however, differs. An explanation may be that the medical staff do not perceive the doctors' wife as their patient, as she has a live-in physician who will look after her and her baby. Nevertheless, her husband expects her to behave very differently from his own patients, and consequently she is effectively ignored by

everyone dealing with her emotional care.^{4 5} On the other hand, the physician-wife is hardly going to think of herself as a patient, let alone in need of medical help.^{2 3}

What is clear, however, is not that being a special patient is particularly harmful but that by not recognising this type of patient quite obvious and simple problems may be missed.

We thank Dr E Lewis, Dr H Bourne, Mr M Pawson, and Dr H Jolly for their comments and help and Dr K McCrae for valuable statistical advice. We also thank the nurses and midwives on the post-natal wards for their co-operation and good humour and Mrs Jane Haile for preparing this manuscript.

References

- Office of Population Censuses and Surveys. *Classification of occupations*. London: HMSO, 1970.
- Allibone A, Oakes D, Shannon HS. The health and health care of doctors. *J R Coll Gen Pract* 1981;31:728-34.
- Murray RW. The health of doctors: a review. *J R Coll Physicians* 1978; 12:403-15.
- Anonymous. Do sick doctors need more than the GMC. *Br Med J* 1981; 282:1-2.
- Scarlett EP. Doctor out of Zebulun: the doctor's wife. *Arch Intern Med* 1965;115:351-7.

(Accepted 11 May 1982)

Cost of anaesthesia

B A ASTLEY, J SECKER WALKER

Abstract

The major contributory factor to the cost of anaesthesia today are the increases in medical salaries that have kept pace with inflation, commanding 68% of the total expenditure. The current position has been compared with that of 20 years ago. This outline could be used as a framework for departmental budgeting.

Introduction

There have been many reports on the cost of anaesthesia over the past 20 years. Simpson¹ and Bailey² in 1978 examined in detail the price of drugs and compared and contrasted different anaesthetic techniques; they pointed out economies that could be made. Other authors^{3 4} combined the cost of drugs and staffing to give an overall cost of anaesthesia. Simpson¹ reported that despite inflation the cost of drugs had stayed fairly constant over the preceding 17 years, but it was subsequently pointed out⁵ that a "new and much larger cost is that of disposable equipment."

Shackleton³ quoted an average of £3.69 per anaesthetic in Southampton. Twenty years later the figure has risen to £29.68 in a London teaching hospital, an increase of eight times. We

have investigated the major contributing factors to the total cost of anaesthesia by considering in turn drugs, equipment and servicing, and medical and nursing staff.

Cost of drugs

The prices of drugs are based on the cost plus VAT as obtained from the hospital pharmacy at the end of 1980. All substances have been considered except liquid oxygen, as this is delivered throughout the hospital and its contribution to the cost of an anaesthetic is negligible.

The total drug bill for 1980 was £44 032. Between them nitrous oxide, thiopentone, fentanyl, and halothane accounted for 56% of this (table I). Nitrous oxide, in clinical use since 1867, still remains the largest single item on the anaesthetic drug bill. It is used instead of nitrogen to provide the non-oxygen content of each tidal volume. It is also an excellent analgesic (300-360 l/h may be used in each anaesthetic). Despite a view currently held by some anaesthetists that in the future anaesthesia will be totally intravenous, nitrous oxide will probably remain a constant ingredient in the vast majority of anaesthetics. The figure for halothane was 11.2%, compared with 37.1% in Sheffield in 1966,⁴ the fall being due partly to awareness of its potential dangers, partly to a reduction in cost from £9.96 per 250 ml when it was introduced to £6.4 per 250 ml, and partly to increased use of neurolept and local anaesthetic techniques.

Fentanyl contributed 11.5% to the total drug bill, and muscle relaxants 22.3%, as compared with 5.3% in 1966.⁴ The expense of the most recent inhalation agent, ethrane, at £28.75 per 250 ml, accounting for 4.7% of the total drug bill, should be contrasted with the price of trichlorethylene at £1.4 per 500 ml.

The current cost of anaesthesia for a major operation such as a hysterectomy (table II) lasting an hour was £3.01 when halothane was used, increased to £4.96 when fentanyl was used, but more than

Department of Anaesthetics, University College Hospital, London WC1

B A ASTLEY, MB, FFARCS, senior registrar in anaesthetics
J SECKER WALKER, MB, FFARCS, consultant anaesthetist