Impact of medical school teaching on preregistration house officers' confidence in assessing and managing common psychological morbidity: three centre study

Chris Williams, John Milton, Paul Strickland, Nick Ardagh-Walter, John Knapp, Simon Wilson, Peter Trigwell, Eleanor Feldman, A C P Sims

The psychiatric problems of inpatients in hospital are associated with distress and increased complexity of care.¹ The admission assessment by preregistration house officers provides an important opportunity to detect and treat these disorders.

Subjects, methods, and results

Questionnaires were given to all preregistration house officers during the third month of their first post (Octo-

ber 1994) at the two largest hospitals in three teaching centres. Each centre has a different style of teaching undergraduate psychiatry. In two centres (1 and 2) psychiatry is taught in one block in the fourth year. The third centre (3) offers an integrated course, with lectures in liaison psychiatry during all three clinical years and psychiatry in the fourth year; moreover, liaison psychiatry is part of the final examination. The survey was repeated during the second house job after different training interventions (a compulsory lecture in centre 1

St James's University Hospital, Leeds LS9 7TF

Chris Williams, senior lecturer in psychiatry

Simon Wilson, senior registrar in psychiatry

A C P Sims professor of psychiatry

Department of Psychiatry, Duncan Macmillan House, Nottingham NG3 6AA

John Milton, research fellow in psychiatry

Nottingham Healthcare NHS Trust, Nottingham NG3 6AA

Nick Ardagh-Walter, senior registrar in psychiatry

Meadowbrook, Department of Psychological Medicine, Salford M6 8HG

Paul Strickland, honorary consultant psychiatrist

York House, Manchester Royal Infirmary, Manchester M13 9WL

John Knapp, senior registrar in psychiatry

Leeds General Infirmary, Leeds LS1 3EX

Peter Trigwell, senior registrar in liaison psychiatry

Department of Psychological Medicine, John Radcliffe Hospital, Oxford OX3 9DU

Eleanor Feldman, consultant liaison psychiatrist

Correspondence to: Dr Williams psycjw@leeds.ac.uk

BMJ 1997;315:917-8

Effects of different teaching interventions on attitudes to clinical assessment and treatment. Values are numbers (percentages)

	Psychiatry integrated in third year			Extra psychiatry in final year			First or second house job*	
	No (n=113)	Yes (n=22)	P value for difference†	No (n=86)	Yes (n=49)	P value for difference†	First (n=135)	Second (n=111)
Anxiety:								
Ask about anxiety	14 (12)	5 (23)	0.20	8 (9)	11 (22)	0.04 ($\chi^2 = 4.46$, df = 1)	19 (14)	12 (11)
Ask about somatic anxiety	1 (1.0)	1 (5)	0.30	1 (1)	1 (2)	1.0	2 (1)	2 (2)
Ask about hyperventilation	4 (4)	2 (9)	0.25	4 (5)	2 (4)	1.0	6 (4)	3 (3)
Consider anxiety during assessment	32 (28)	10 (45)	0.11 ($\chi^2 = 2.52$, df = 1)	20 (23)	22 (45)	0.01 ($\chi^2 = 6.82$, df = 1)	42 (31)	40 (36)
Anxiety scenario:								
Discuss anxiety with patient	102 (90)	20 (91)	1.0	76 (88)	46 (94)	0.37	122 (90)	100 (90)‡
Assess anxiety	46 (41)	17 (77)	0.002 ($\chi^2 = 9.89$, df = 1)	36 (42)	27 (55)	0.14 ($\chi^2 = 2.20$, df = 1)	63 (47)	48 (43)‡
Treat anxiety	18 (16)	6 (27)	0.23	12 (14)	12 (24)	0.12 ($\chi^2 = 2.37$, df = 1)	24 (18)	14 (13)‡
Treat hyperventilation	68 (60)	16 (73)	0.28 ($\chi^2 = 1.23$, df = 1)	49 (57)	35 (71)	0.10 ($\chi^2 = 2.77$, df = 1)	84 (62)	65 (59)‡
Depression:								
Ask about depression	15 (13)	4 (18)	0.51	12 (14)	7 (14)	0.96 ($\chi^2 = 0.00$, df = 1)	19 (14)	17 (15)
Ask about biological symptoms of depression	9 (8)	2 (9)	1.0	8 (9)	3 (6)	0.75	11 (8)	11 (10)
Ask about suicidal ideas	4 (4)	0 (0)	NA	2 (2)	2 (4)	0.62	4 (3)	4 (4)
Consider depression during assessment	14 (12)	3 (14)	1.0	8 (9)	9 (18)	0.13 ($\chi^2 = 2.33$, df = 1)	17 (13)	16 (14)
Consider suicide	2 (2)	0 (0)	NA	0 (0)	2 (4)	NA	2 (1)	2 (2)
Depression scenario:								
Discuss depression with patient	103 (91)	22 (100)	0.37	78 (91)	47 (96)	0.33	125 (93)	105 (95)
Assess extent of depression	58 (51)	15 (68)	0.15 ($\chi^2 = 2.10$, df = 1)	44 (51)	29 (59)	0.37 ($\chi^2 = 0.81$, df = 1)	73 (54)	57 (51)
Assess suicidal thoughts	78 (69)	20 (91)	0.04 ($\chi^2 = 4.43$, df = 1)	57 (66)	41 (84)	0.03 ($\chi^2 = 4.74$, df = 1)	98 (73)	75 (68)
Treat depression	9 (8)	6 (27)	0.02	7 (8)	8 (16)	0.15 ($\chi^2 = 2.12$, df = 1)	15 (11)	17 (15)
Substance misuse:								
Ask about alcohol	111 (98)	22 (100)	NA	84 (98)	49 (100)	NA	133 (99)	110 (99)
Ask about illegal drugs	13 (12)	4 (18)	0.48	6 (7)	11 (22)	0.01 ($\chi^2 = 6.79$, df = 1)	17 (13)	18 (16)
Alcohol scenario:								
Discuss alcoholism with patient	109 (96)	22 (100)	1.0	84 (98)	47 (96)	0.62	131 (97)	108 (97)
Treat alcohol problems	36 (32)	12 (55)	0.04 ($\chi^2 = 4.13$, df = 1)	27 (31)	21 (43)	0.18 ($\chi^2 = 1.79$, df = 1)	48 (36)	51 (46)
Consider referral to specialist	101 (89)	17 (77)	0.15	79 (92)	39 (80)	0.04 ($\chi^2 = 4.27$, df = 1)	118 (87)	96 (86)

NA = χ^2 test not appropriate.

*No significant differences between centres, so centres were combined.

†Fisher's exact test unless stated otherwise.

‡One subject did not complete this section.

and a voluntary, clinical, problem oriented teaching in centre 3); centre 2 (no intervention) acted as a control. Any differences in score in this assessment could result from the residual effects of medical school teaching, the impact of the training intervention (centres 1 and 3), plus additional effects of maturity, training, exposure to peers or senior staff, and the effects of doing the questionnaire during the first house job.

The questionnaire used a system based, clinical checklist (respiratory, cardiovascular etc) to ask about questions that were routinely asked or considered when a new patient was admitted. In addition, three short clinical scenarios were used: a 50 year old woman who was depressed and weepy was used to assess house officers' confidence in assessing and treating depression; a 20 year old asthmatic patient repeatedly admitted with panic and hyperventilation was used for anxiety; and a 40 year old man with excessive alcohol intake for alcohol misuse.

In all, 135 of 160 questionnaires (84%) were completed, with no differences in completion rates between sites ($\chi^2 = 0.15$, $df = 2$, $P = 0.93$). Questions on physical aspects such as the presence of coughs, angina, ankle swelling, and palpitations were routinely asked by over 90% of house officers, but questions on psychological state were rarely asked or even considered. Preregistration house officers often believed they lacked the skills to assess and treat these three common psychiatric problems (table).

Analysis was based on the reported style of training received by the doctors. Only 22 (16%) had been taught to assess psychosocial factors routinely during their first clinical year, and 49 doctors (36%) were taught additional psychiatry during their final year. These doctors felt most confident in assessing and treating these common psychiatric problems. At the second survey no differences were found

between centres so the results were combined and the interventions deemed ineffective.

Comment

Tomorrow's Doctors recommends that students learn how to carry out a mental state examination.² We found that newly qualified doctors rarely assessed or had confidence in treating common psychiatric conditions, and our findings may even underestimate the extent of these problems.^{3,4} Two different postgraduate teaching interventions failed to improve these results.

When students are taught at an early stage that an awareness of psychological disorder is important in assessing all patients, and when this is reinforced throughout the clinical years, they are likely to be more confident in assessing and treating common psychological problems.

Many medical schools are currently reviewing their undergraduate psychiatry curriculums.⁵ We believe that an integrated assessment which addresses physical, psychological, and social aspects of illness should be taught and examined in all components of clinical medical training. Such changes may improve the competence of doctors and overall medical care.

Funding: None.

Conflict of interest: None.

- 1 Royal Colleges of Physicians and Psychiatrists. *Joint working party report: the psychological care of medical patients: recognition of need and service provision*. London: RCGP, 1995.
- 2 General Medical Council. *Tomorrow's doctors. Recommendations on undergraduate medical education*. London: GMC, 1993.
- 3 Awad I, Wattis J. Alcohol histories in hospital: does the age and sex of the patient make a difference? *Br J Addict* 1990;85:149-50.
- 4 Williams CJ, Wilson S. Today's doctors — pre-registration house officers' psychological knowledge in practice. *Psychol Bull* 1996;20:398-400.
- 5 Crisp A. Psychological contributions to the undergraduate medical curriculum. *Psychol Bull* 1994;18:257-9.

(Accepted 17 February 1997)

Occurrence of renal scars in children after their first referral for urinary tract infection

Malcolm G Coulthard, Heather J Lambert, Michael J Keir

See p 905

Department of
Child Health, Royal
Victoria Infirmary,
Newcastle upon
Tyne NE1 4LP
Malcolm G
Coulthard,
consultant paediatric
nephrologist
Heather J Lambert,
consultant paediatric
nephrologist

continued over

BMJ 1997;315:918-9

Urinary tract infections in childhood may cause renal scars, which can lead to hypertension and renal failure: diagnostic imaging is therefore important to detect children with scarring so that they can be monitored. A multidisciplinary group that produced imaging guidelines¹ broadly agreed that younger children should have a dimercaptosuccinic acid (DMSA) scan to detect scarring and an ultrasonography to identify structural lesions after one infection, but most thought that children over 7 years should be investigated only after recurrent infections, using ultrasound only, perhaps because of their low risk of new scar formation.² Others have suggested imaging only children who have a fever.³ In Newcastle we have performed ultrasound and dimercaptosuccinic acid scans (after two months free of infection) on every child when first referred after a urinary tract infection. Here we describe our referral and scarring rates.

Patients, methods, and results

We calculated first referral rates for urinary tract infections in children aged under 16, from three health districts, from scan records at the Royal Victoria Infirmary and Newcastle General Hospital throughout 1992-5. Details available for the Royal Victoria Infirmary's cases (81%) included sex, age, extent of scarring, and consultant. Details of the presenting infections were obtained from clinical notes (92 children with scars, 232 controls), including bacteriological evidence, history, associated fever, vomiting, malaise or anorexia, hospital admission, and ultrasound findings.

The mean annual referral rate was 0.46% (2842 children in 4 years, from a population of 154 000). Girls outnumbered boys threefold; cumulative referral rates by the age of 16 were 3.6% for boys and 11.3% for girls (table). Under 1 year boys and girls were seen in similar numbers, but deviated thereafter. Sex and age