

# Out-of-hours work: what is the training value for paediatric senior house officers?

*Out-of-hours work is needed for recognition of training posts. This article looks at the opinions of paediatric senior house officers on the training value of this work. Although senior house officers felt out-of-hours work was important for training, suggested improvements are discussed.*

## Introduction

Senior house officers (SHOs) spend a significant amount of working time out of normal working hours. On-call experiences of psychiatric (Callaghan et al, 2005), medical (Baldwin et al, 1997) and surgical (Brown et al, 2002) SHOs have been described but searches of EMBASE and Medline found no studies of paediatric SHOs' out-of-hours training experiences.

The European Working Time Directive and Modernising Medical Careers are reducing the total number of hours junior doctors spend training. As a result, training opportunities need to be maximized with out-of-hours working an important aspect. A study was therefore undertaken to evaluate the opinions of SHOs on the educational value of out-of-hours working.

## Methods

A 22-item questionnaire was designed using Royal College of Paediatrics and Child Health basic specialty training guidance (Royal College of Paediatrics and Child Health, 2004). SHOs were asked to rate statements about different aspects of out of hours work on a Likert scale from 1 (disagree) to 6 (agree). Mean scores were calculated for each item using the SPSS statistical software package, version 13.0. Demographic data were collected and analysed including

age, gender, number of years as an SHO, medical school and time since graduation. SHOs filled in the questionnaires at West Midlands Deanery regional teaching programmes in September 2005.

## Results

The questionnaire was completed by all 90 SHOs present at the regional teaching in September 2005. At this time there were a total of 130 SHOs on the West Midland paediatric rotations, so the views of 69% of SHOs were obtained. Not all of the questions were answered by all respondents. Internal consistency of the questionnaire was good with a Cronbach's alpha of 0.74.

## Opinions

There were high levels of agreement that out-of-hours work is an important part of training (Table 1). In fact, trainees considered out-of-hours working almost as important for their own training as it was for service provision (mean scores 5.04 and 5.28 respectively). In relation to the acquisition of skills expected of SHOs, opportunities to manage critically ill children and to make decisions were good (mean scores 4.81 and 4.62 respectively). Opportunities to perform practical procedures were valued less highly (mean score 3.76).

Views on the value of out-of-hours work for the Membership of the Royal College

**Table 1. Senior house officers' opinions on out-of-hours work**

	N	Mean score	Standard deviation
Out-of-hours work is an important part of service provision	90	5.28	1.05
Out-of-hours work is an important part of training	89	5.04	1.30
'On-call' experience is different from that gained in conventional working hours	90	4.98	1.07
There is adequate handover during shift changes	90	4.82	1.03
I am involved in the management of critically ill children while working out of hours	90	4.81	1.05
There are local guidelines to assist my decision making while 'on-call'	90	4.68	1.10
I am adequately supported by senior colleagues while working out of hours	89	4.62	1.16
I have opportunities to make decisions while working out of hours	90	4.62	1.19
I manage my time efficiently while working out of hours	90	4.32	1.04
I am working as part of a multidisciplinary team while working out of hours	89	3.99	1.28
I have opportunities to undertake practical procedures while working out of hours	88	3.76	1.48
Out-of-hours work is useful for the MRCPCH exam	82	3.72	1.23
I have informal teaching while working out of hours	90	3.40	1.40
I am able to 'follow through' patients seen while working out of hours	90	3.33	1.36
I am given feedback on the work I do out of hours	89	3.10	1.31
I am asked to do inappropriate tasks while working out of hours	88	3.01	1.55

MRCPCH = Membership of the Royal College of Paediatrics and Child Health

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of Paediatrics and Child Health examination were unclear (mean score 3.72). There were also equivocal mean scores for informal teaching, the ability to follow through patients and feedback on performance out of hours (mean scores 3.40, 3.33 and 3.10 respectively).

### Variability with demographic data

There was no significance difference in any of the items for gender, age or whether medical school of graduation was in the UK, EU or overseas (Table 2). Length of time spent as an SHO led to differences in opinions on managing time effectively and working as part of a multidisciplinary team ( $P<0.05$ ). With increasing time spent as an SHO, doctors felt they managed time more effectively but felt less part of a multidisciplinary team. Overseas graduates had been qualified significantly longer than UK graduates ( $P\leq 0.001$ ).

### Discussion

This survey shows that paediatric SHOs value out-of-hours work highly and view it as important for their training. The oppor-

tunity to develop skills such as managing critically ill children and decision making were valued by the SHOs.

In the future there will be less time and fewer opportunities available for junior doctors' training. Hours of work continue to be reduced to reach the target of 48 hours per week by 2009 (Pickersgill, 2001), and less time will be spent in specialty training when the run-through training grade is implemented as part of Modernising Medical Careers in 2007. It is therefore particularly important that we make the most of all working time available. In acute specialties such as paediatrics, out-of-hours work is an important component of training and service delivery. As shift rotas become the norm, out-of-hours work is increasing as a proportion of total working hours. This leads to a reduction in opportunities to attend daytime protected teaching and highlights the need for more informal training opportunities.

This survey revealed some shortcomings in feedback, informal teaching and opportunities for undertaking practical procedures while on-call and attention should be given to improving these areas. Feedback has been previously highlighted as a deficiency in other specialties: a survey of the work experiences of medical SHOs (Baldwin et al, 1997) revealed the majority felt there was insufficient feedback.

There are several ways informal teaching and feedback could be improved while on call. Foundation doctors are required to complete workplace-based assessments of skills such as the DOPS (direct observation of procedural skills), Cbd (case-based discussion) and mini-CEX (clinical evaluation exercise). Use of these tools while working out of hours introduces assessment and feedback into routine tasks such as performance of lumbar punctures and presentation of cases to the on-call registrar. Another opportunity to introduce feedback and informal teaching into out-of-hours work is the morning handover. At many hospitals, this is consultant led and in the authors' experience is often used for informal feedback. This feedback could be enhanced by case-based discussion, either with a 5-minute discussion each day on a highlighted topic or a once- or twice-weekly trainee-led case-based presentation.

Consideration needs to be given to those SHOs who did not complete the questionnaire. SHOs do not attend the

regional teaching when they are on night shifts, annual or study leave. With 19 trusts in the West Midlands Deanery employing paediatric SHOs and at least one SHO from each trust on annual leave and one on night shifts then a 69% attendance rate at the teaching and hence response to the questionnaire was excellent. It is unclear whether the views of those unable to attend the teaching would have been different to those who were present.

### Conclusions

At a time of change in specialist training, with reduction in working hours and training duration, it is important that all training is perceived as valuable. The findings of this study are equally applicable to other acute specialties as well as paediatrics. The authors suggest that out-of-hours experience needs careful evaluation as part of Modernising Medical Careers and specialty grade training reorganization. **BJHM**

*Conflict of interest: none.*

- Baldwin PJ, Newton RW, Buckley G, Roberts, MA, Dodd M (1997) Senior house officers in medicine: postal survey of training and work experience. *BMJ* **314**: 740-3
- Brown J, De Cossart L, Wiltshire C (2002) Exploring the views of basic surgical trainees (senior house officers) on a basic surgical training scheme. *Med Teach* **24**: 559-61
- Callaghan R, Hanna G, Brown N, Vassilas C (2005) On call: a valuable training experience for senior house officers? *Psychiatr Bull* **29**: 59-61
- Pickersgill T (2001) The European working time directive for doctors in training. *BMJ* **323**: 1266
- Royal College of Paediatrics and Child Health (2004) *A Framework of Competencies for Basic Specialist Training in Paediatrics*. Royal College of Paediatrics and Child Health, London

**Table 2. Characteristics of senior house officers**

Characteristic	n (%)			
Gender	Males	36 (42)		
	Females	50 (58)		
Age (years)	20-25	16 (18.6)		
	26-30	47 (54.7)		
	31-35	16 (18.6)		
	36-40	6 (7.0)		
	40+	1 (1.2)		
Time qualified (years)	0-5	46 (55)		
	6-10	29 (38)		
	11+	6 (7)		
Time as a senior house officer (in the UK)	0-6 months	20 (23)		
	7-12 months	8 (9)		
	1-2 years	41 (48)		
	3-4 years	13 (15)		
	4+ years	4 (5)		
Time qualified	1-5 years	6+ years	Medical school	
				34 (94)
	0 (0)	4 (100)		EU
	8 (20)	32 (80)		Overseas

### KEY POINTS

- Out-of-hours work is important for training especially as total training times reduce.
- An increasing proportion of total working time is outside conventional working hours.
- Senior house officers value out-of-hours work as important for their training as well as for service provision.
- Senior house officers express opinions that there are some shortcomings in feedback, informal teaching and opportunities for undertaking practical procedures when working outside normal hours.
- Use of assessment tools would enhance the value and give feedback on out-of-hours work.