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# Computer access, skills and training among consultants and psychiatric trainees in Northern Ireland

## AIMS AND METHOD

Computers and information technology (IT) play an increasingly important role in the working lives of psychiatrists. Previous studies have shown that computer access and skills among psychiatric trainees were inadequate. This survey aimed to assess the level of access to, and skill in, different IT applications among consultants and trainees in

Northern Ireland, as well as what training is offered and needed.

## RESULTS

Most doctors (91%) had access to the more basic applications, such as word processing, and most felt at least adequately skilled. However, access to and knowledge of statistical software was particularly poor. A minority of doctors were

offered training in IT (39%), even though most employers provided this facility.

## CLINICAL IMPLICATIONS

Psychiatrists need greater access to IT, and need to make greater use of available training. This is especially relevant in light of future policy directions and the trend for evidence-based practice.

Computers and the Internet have increased dramatically in their importance to the medical profession in the past decade. Psychiatrists now have very easy access to journals, evidence-based psychiatry, information on professional organisations and peer support (Stone & Sharpe, 2003), all from their office. The Internet also provides a forum for the conducting and publishing of research (Eysenbach & Wyatt, 2002). Patients have access to a myriad of information through the Internet, including education on mental health issues, support from other non-professionals and 'antipsychiatry' material (Stone & Sharpe, 2003), although many doubts have been expressed about the quality of information available to the general public (Roberts & Copeland, 2001). The Samaritans organisation has an e-mail counselling service ([www.samaritans.org/talk/email](http://www.samaritans.org/talk/email)), and e-mail contact with patients is used by many psychiatrists already (Kassaw & Gabbard, 2002). The National Mental Health Information Strategy (Department of Health, 2001) envisages the use of electronic patient records in all mental health services by 2007, and use of the National electronic Library for Mental Health (NeLMH) for an evidence base. This will guarantee that all psychiatrists need to feel adept in the use of IT.

A previous survey showed that only 55% of psychiatric senior house officers (SHOs) and 70% of specialist registrars (SpRs) had access to a computer at work (Kotak & Butler, 2001). Another (Williams & Curran, 1998) found that 57–84% of senior registrars did not have the skills necessary to use a computer or word processor, or carry out a CD-ROM literature review, and 65% could not use a statistical package. These authors concluded that trainees and trainers should have training to develop skills in this area.

This survey aimed to assess access to computers, IT skills and training needs of psychiatric consultants and trainees in Northern Ireland.

## Methods

Questionnaires were devised and sent to college tutors by post in October 2003, to be distributed among all psychiatric trainees and consultants in Northern Ireland. They were asked about access to computers at home and at work, access to different applications, an assessment of their level of skills, and whether they had been offered, or would like, training in IT skills. Additional comments were also sought.

## Results

Response rates were 28/89 (31%) for consultants, 17/34 (50%) for SpRs, 6/12 (50%) for staff grade doctors and 47/84 (56%) for SHOs. Overall, 98/219 (45%) responded. Two questionnaires were not fully completed.

Eighty-five per cent had a computer at home, and 78% Internet access, well above the proportion of the general population with home Internet access, 48% ([www.statistics.gov.uk/](http://www.statistics.gov.uk/)).

## Access to applications

Psychiatrists were asked about their work access to word processing, Microsoft PowerPoint, software for statistical analysis, the Internet, e-mail, and searchable databases such as Medline or the Cochrane database. Most respondents (91%) had access to word processing, but only 26% knew of access to statistical software. The responses by grade are shown in Table 1. A greater percentage of consultants than any other grade of psychiatrist had access to each of the applications.

## Computing skills

Respondents were asked to rate their own skills in the same application as good, adequate or poor. Overall, doctors felt better skilled using the Internet or e-mail



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(Table 2), and felt they were least skilled in the area of statistical software, where only 17% rated themselves as good or adequate. More consultants rated themselves as being poorly skilled, compared with SpRs, staff grades and SHOs, in 5 of the 6 applications enquired about.

## Training

Respondents were asked if they had ever had, or been offered, training in the different aspects of IT. Training in searchable databases was most commonly offered, with 39% of doctors having been offered this. Thirty-eight per cent were offered training in word processing, 35% in PowerPoint, 32% in e-mail use and 31% in Internet use. Only 12% were offered training in statistical packages. With all six applications, consultants were more likely to have been offered training than other grades.

Those who were not offered training were asked whether they would like to have it. There was a greater need for training in searching databases and statistical software, with 86% and 85%, respectively stating that they would like it. Seventy-two per cent wanted training in using PowerPoint, 50% in word processing, 49% in Internet use and 43% in using e-mail.

Because of the low number of doctors who said they had not been offered training, it was decided to contact the IT departments of the 13 healthcare trusts involved. These were contacted by telephone and asked about what training they offered doctors. Eight departments said they regularly offered training to doctors, four could do training if requested, and only one offered no training at all, but directed those who wanted it to external agencies.

## Other comments

Psychiatrists were also asked for any other comments on IT issues. Many commented that although they had computer access, it was difficult because there were too few computers, the computers were off-site, or they were outdated. Another common complaint was the lack of access to web-based e-mail, which is often barred by networks because of the risk of virus transmission. All those who commented on training they had received were satisfied with it.

## Conclusions

The low response rate (45%) in this survey may be partly explained by the method of distribution, which did not involve sending questionnaires to individually named doctors. The response rate for consultants was particularly poor and selection bias may have played a part in the results for this particular group, which stood out from those of other grades. Also, the return of only six questionnaires from staff grade doctors made it difficult to draw inferences for this group, so their data were merged with that of the SpRs in the tables. The measure of skill was subjective, and respondents may not have accurately reported their own abilities.

Access to computers in this survey is better than in the study by Kotak & Butler (2001). Considering the 4-year gap between the two surveys, this improvement probably reflects improved access across the health service as a whole, rather than better resources in Northern Ireland only. Despite this improvement, access to different applications is variable. Most doctors have access to word processing and PowerPoint, but 17% and 28.5%, respectively feel poorly skilled. Although many doctors will have administrative staff who can use these, this is not always the case, and SHOs in particular often have to produce presentations by themselves. Respondents felt most confident in the use of e-mail and the Internet, consistent with the high numbers who use them at home. Considering how important it is to be able to access high-quality research to practise evidence-based psychiatry, it is surprising that only three-quarters of respondents had access to searchable databases, and one quarter rated themselves as being poor at using them. The results of this survey regarding statistical software stand out. It is the application to which doctors have the least access, least skill, and least training. This is particularly telling for SpRs, who have a commitment to research as part of their training, yet only 29% have access to the software and 71% do not know how to use it. There is much scope for improvement here among all grades. Aside from research, it can be used in the teaching of evidence-based practice and statistics.

There is a clear disparity between the training doctors feel is available to them and the training IT departments say they offer. The reason for this is unclear,

**Table 1. Access to applications**

		Word processing			PowerPoint			Statistics software			E-mail			Internet			Searchable databases		
		Yes	No	DK	Yes	No	DK	Yes	No	DK	Yes	No	DK	Yes	No	DK	Yes	No	DK
Consultants	N	27	1	0	25	1	1	13	9	5	27	1	0	25	3	0	23	4	1
	(%)	96	4		92	4	4	48	33	19	96	4		89	11		82	14	4
SpRs & Staff grades	N	18	5	0	14	6	3	8	9	6	15	8	0	17	6	0	16	7	0
	(%)	78	22		61	26	13	35	39	26	65	35		74	26		70	30	
SHOs	N	43	0	3	38	2	6	4	15	27	28	12	6	35	6	5	33	7	6
	(%)	94		6	83	4	13	9	32	59	61	26	13	76	13	11	72	15	13
Overall	(%)	91	6	3	80	10	10	26	34	40	72	22	6	79	16	5	74	19	7

DK, don't know; SpRs, specialist registrars; SHOs, senior house officers



Table 2. Computing skills

		Word processing			PowerPoint			Statistics software			E-mail			Internet			Searchable databases		
		Good	Adeq	Poor	Good	Adeq	Poor	Good	Adeq	Poor	Good	Adeq	Poor	Good	Adeq	Poor	Good	Adeq	Poor
Consultants	N	6	13	9	5	10	13	3	3	22	13	8	7	13	12	3	9	11	8
	(%)	22	46	32	18	36	46	11	11	78	46	29	25	46	43	11	32	39	29
SpRs & Staff grades	N	8	11	4	7	9	7	1	6	16	10	11	2	10	11	2	4	13	6
	(%)	35	48	17	30	40	30	4	26	70	43	48	9	43	48	9	17	57	26
SHOs	N	20	23	4	15	25	7	0	4	43	32	13	2	31	15	1	11	26	10
	(%)	43	49	8	32	53	15		8	92	68	28	4	66	32	2	24	55	21
Overall	(%)	35	48	17	28.5	45	28.5	4	13	83	56	33	11	55	39	6	24.5	51	24.5

Adeq, adequate; SpRs, specialist registrars; SHOs, senior house officers

but it may be that offers of training do not filter down to the individual doctor. More consultants were offered training than trainees, which may have to do with the transient nature of training posts. Consultants also had greater access to IT than trainees, but felt they were less skilled in most areas. This suggests that consultants are not taking up the opportunities for training.

A need for training of all psychiatrists in IT was identified here. Particularly urgently needed is training in the skills necessary for understanding and practising evidence-based psychiatry (using databases and statistics), partly reflecting lack of expertise. It is up to doctors to use whatever training is available, and if the training is insufficient, to lobby for improvements. The College may also have a role here, and could consider incorporating IT matters into approval visits.

## Declaration of interest

None.

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