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Using email as a research tool in general practice: starting to implement the *National Service Framework for Mental Health*

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ABSTRACT

Introduction The first primary care trust milestone for implementation of Standard 2 of the *National Service Framework for Mental Health* is the use of a formal diagnostic approach to the assessment of the severity of common psychiatric illnesses. Whilst developing a diagnostic tool to assess depressive symptoms, based on the ICD-10 classification of disease, we surveyed the current usage of such diagnostic aids by general practitioners (GPs) in Birmingham. According to the Birmingham Health Authority IT Directorate, 477 GP principals in the city had personal access to email at their practices through the NHSnet.

Method All GPs were sent a short questionnaire by email. They were asked to indicate their responses to four yes/no answers and return the email by pressing the 'Reply' icon. Non-respondents were then sent the questionnaire by post.

Results We had a total response rate of 67%. We received an email response from 105 GPs, or

22%. A further 216 out of a possible 372 GPs (58%) then responded by post. Forty-seven (22%) of the postal respondents had received the email, but 38 of them had problems replying; 150 (69%) said that they had never seen the email.

Conclusions The overall response rate to the questionnaire suggests that the topic was considered sufficiently relevant for GPs to reply and was not the reason for the poor email response. There were no obvious differences in the answers to the questionnaire to suggest that the mental health topic had identified a separate email-using GP population. Although four out of every five Birmingham GPs have access to email, only one in five feels confident or competent to use it as a regular means of professional communication. It is not yet appropriate to use email as the only conduit for obtaining GP opinion.

Keywords: email, general practice, mental health, research

Introduction

Over the last five years there has been increasing interest in the use of email as a method of obtaining information for epidemiological and other research purposes and for surveying opinion. Studies to date in the UK and the USA have found better response rates to postal questionnaires, but have identified the reduction in costs for electronic communication, both in terms of postal charges and time taken for replies.^{1–4}

Last year, Evans *et al.* reported the use of email by doctors in the West Midlands, following a postal survey in 2000.⁵ In addition to 224 questionnaires distributed to doctors at three large hospitals, 300 general practitioners (GPs) selected at random from a list of 771 GP principals around Birmingham were also sent questionnaires. They reported a 60% response rate, but did not comment whether there was any difference in the response rate between hospital and GP groups. They found that 55% of the responding GPs said that they used email, in comparison with

84% of hospital consultants. However, the main use was for communication with friends and family (92%) or work colleagues (61%), and for transmitting clinical data (7%) and making referrals (3%).

In 2001, all GP principals responsible to Birmingham Health Authority were to be linked to the NHSnet at their surgeries at no cost and given their own individual email addresses. By October 2001, the Birmingham Health Authority IT Directorate could identify 477 GPs in the city with NHSnet access.

At this time, we were undertaking a project supported by the West Midlands Deanery from 2000/2001 'Blending Education and Service' funds to facilitate the implementation of the first primary care trust (PCT) milestone of Standard 2 of the *National Service Framework for Mental Health*.⁶ This requires the use of a formal diagnostic approach to the assessment of the severity of common psychiatric illnesses. We were investigating the possibility of developing a diagnostic tool to allow consistent measurement of the severity of depressive episodes in the general practice consultation, based on the ICD-10 classification of disease. The World Health Organization (WHO) published the condensed primary care version of the universally accepted ICD-10 model in 2000 (ICD-10 PHC).⁷ *The WHO Guide to Mental Health in Primary Care* – incorporating ICD-10 PHC – has already been

successfully adapted for the UK by the WHO Collaborating Centre (at the Institute of Psychiatry in London) under the direction of Professor Rachel Jenkins, and endorsed by the Royal College of General Practitioners, the Royal College of Psychiatrists, the Royal College of Nursing and the Patients' Association.

As a part of the baseline for our audit cycle, we wanted to survey the current routine use and understanding of formal diagnostic tools and the ICD-10 PHC in managing depression among general practitioners in the city. In view of the increasing acceptance and availability of email as a communication medium, we decided to send our first simple questionnaire by email to all GP principals in Birmingham with known NHSnet addresses. Then, if necessary, we could revert to a traditional postal follow-up and at the same time incorporate two further simple questions to investigate whether GPs had actually seen the email communication.

Method

The short questionnaire shown in Figure 1 was sent to 477 GPs in Birmingham, with the instruction to alter

There are only **four** questions. All you need to do is change the *text in italics* into **bold** type to indicate your answer on screen. Your immediate response is required: there is no need to look anything up. There are no right or wrong answers – all I want to know is your current practice.

1 Do you use any formal diagnostic criteria when diagnosing depression?

ALWAYS / USUALLY / OCCASIONALLY / NEVER

If you do, please specify source of criteria }

2 Do you use any clinical guidelines to help you manage depression?

ALWAYS / USUALLY / OCCASIONALLY / NEVER

If you do, please specify source }

3 Do you use any depression rating scales for assessment during the consultation?

ALWAYS / USUALLY / OCCASIONALLY / NEVER

If you do, please specify which ones }

4 There are two main classifications in use at present for defining depression: please indicate your familiarity with each of them by changing the most appropriate response for you into **BOLD**.

ICD-10

NEVER HEARD OF IT / HEARD OF IT / READ ABOUT IT / ATTENDED TEACHING SESSION ON IT / USE IT

DSM-IV

NEVER HEARD OF IT / HEARD OF IT / READ ABOUT IT / ATTENDED TEACHING SESSION ON IT / USE IT

Figure 1 The email questionnaire

the text to provide the appropriate answer and return by pressing the 'Reply' icon.

The first problem we encountered was that most GPs received their emails in plain text rather than rich text which negated the italics and so they were unable to change these to bold. This necessitated a second mailing to include the change of instruction to underline the appropriate answer.

Having sent two emails, and not received a response, we sent the form out by post on a single side of A4 with a personalised covering letter, individually signed, and a stamped addressed envelope. We added two further questions (see Figure 2).

Results

We had an email response of 105 out of a possible 477, or 22%. The questionnaire was sent by post to 372 GPs. A further 216 or 58% replied to the paper questionnaire. This provided us with an overall response of 321 out of 477 (67%). This response rate is in line with replies to previous postal questionnaires from us to Birmingham practices, for example the 186/249 or 75% response of practices surveyed to a diabetes management questionnaire in 1996, the 65% response from individual practitioners to the prescribing of innovative drugs in the city in 1997, and is better than the rather disappointing 54% response to an elder abuse survey in 1999.⁸⁻¹⁰

The results of the questionnaire are shown in Tables 1 and 2. We cannot see any obvious differences between the replies of the postal and email respondents to suggest that the mental health subject matter had any bearing on the use of the communication medium or GPs' willingness or ability to undertake email responses. The postal respondents appeared slightly less aware of the ICD-10 and DSM-IV classifications of disease. Although some respondents gave more than one answer about their acquaintance with these classifications, we have recorded the highest levels of awareness in Table 2.

Forty-seven (22%) of the postal respondents agreed to having seen the email questionnaire: 38 (81%) of these admitted to problems in replying electronically. Of the postal respondents 150 (69%) said that they had never seen the email and 15 were unsure if they had seen it or not; four did not specify a comment.

Discussion

Although 477 GPs in Birmingham were connected to the NHSnet by October 2001 at their surgeries, only a quarter replied to a simple questionnaire by email. Although this figure might have been predicted from the previous findings of Evans *et al.* from 1999, we would have expected an increase in email usage over the 18-month period since that survey.⁵ At that time, just 24% of their respondents used email to

In view of our problem with the NHSnet email questionnaire, please answer the following:

A Did you see the email questionnaire similar to the one above?

YES / NO / DON'T KNOW

B Did you have problems replying?

YES / NO / DON'T KNOW

Figure 2 Two further questions

Table 1 Email results

477 questionnaires	Total <i>n</i> (%)	Email <i>n</i> (%)	Post <i>n</i> (%)
Replies	321 (67)	105 (22)	216 (58)
Email seen	152 (32)	105	47
Reply problem	47	9	38

Table 2 Questionnaire results

In managing depression:	Total %	Email %	Post %
Use formal diagnostic criteria			
Always	9	9.5	8.5
Usually	18	13	20
Occasionally	23	19	23
Never	50	50	47
Use clinical guidelines			
Always	6.5	6.5	6.5
Usually	23	20	23
Occasionally	19	15	20.5
Never	50	50	49
Use a depression rating scale			
Always	2	2	2
Usually	6	6.5	6
Occasionally	22	24	20
Never	69	59	71
ICD-10 classification			
Never heard of it	25	20	27
Heard of it	37	39	36
Read about it	18.5	20	18
Attended teaching on it	6	4	6
Use it	6	7	5
Not answered	6	9.5	5.5
DSM-IV classification of disease			
Never heard of it	40	34	44.5
Heard of it	27	28.5	25
Read about it	18.5	23	19
Attended teaching on it	4	2	5
Use it	3.5	4	3
Not answered	7.5	8.5	7

communicate with work colleagues – of the 39% of doctors (GPs and hospital doctors) in their survey who used email, 61% of them used it for this purpose. As the NHSnet has now become freely available to all GPs, we thought that this should have had an effect on usage along with increasing computer skills and availability both at home and work.

We had not anticipated the technical difficulties with the plain/rich text reply problem. Sixty email respondents managed to reply to the first mailing and a further 45 to the revised instruction. Of the email non-respondents, 80% admitted on their postal replies to problems in trying to answer electronically. If they had been able to send their reply by email this would have increased the email response by 40%. Even so, we are still left with 165 GPs (half of all respondents, a third of the total with email addresses) who did not know whether they had ever seen the questionnaire in electronic format.

The response to the same questionnaire sent to email non-respondents suggests that there was no problem with the subject matter of the questionnaire. Ten GPs offered free text comments. One of the postal respondents was deterred from replying by email on account of the lack of anonymity. Six admitted that they never checked their email or did not know how. Two denied that they could receive email and two said that they did not reply to questionnaires anyway.

Conclusions

Email is a cheap and efficient way of researching GP views, although there are still some technical glitches. Despite the Government's investment into the NHSnet, half the GP workforce in Birmingham has yet to

incorporate the use of email as a routine means of communication in practice. In consequence, a survey of GP opinion by email alone will at best reflect the views of only half of the country's GPs, with a further corresponding reduction with an average 60% response rate.

At present, we cannot recommend the use of email communication alone to assess and reflect GP opinion.

Summary

- In 2001, 80% of GP principals in Birmingham had access to email.
- Only one in five feels confident or competent enough to use it as a regular means of professional communication at the moment.
- It is not yet appropriate to use email as the only conduit for obtaining GP opinion.

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