

Using alternatives to face-to-face consultations: a survey of prevalence and attitudes in general practice

Abstract

Background

The ubiquitous use of communication technologies has led to an expectation that a similar approach should extend to health care. Despite considerable rhetoric about the need for general practices to offer alternatives to face-to-face consultations, such as telephone, email, and internet video consultations, the extent to which such technologies are actually used at present is unclear.

Aim

The aim of the survey was to identify the frequency and range of ways in which general practices are providing (or planning) alternatives to face-to-face consultations.

Design and setting

A postal survey of practices around Bristol, Oxford, Lothian, the Highlands, and the Western Isles of Scotland.

Method

A postal questionnaire survey was sent to each of the GPs and practice managers of 421 practices between January and May 2015.

Results

A response was received from 319/421 practices (76%). Although the majority of the practices reported that they were conducting telephone consultations frequently ($n = 211/318$, 66%), fewer were implementing email consultations ($n = 18/318$, 6%), and most ($n = 169/318$, 53%) had no plans to introduce this. None were currently using internet video, and 86% ($n = 273/318$) had no plans to introduce internet video consultations. These findings were repeated in the reported use of alternatives to face-to-face consultations at an individual GP level. Optional free text responses were completed by 28% of responders, and offered an explanation for the (often perceived) barriers and incentives for implementation.

Conclusion

Despite policy pressure to introduce consultations by email and internet video, there is a general reluctance among GPs to implement alternatives to face-to-face consultations. This identifies a substantial gap between rhetoric and reality in terms of the likelihood of certain alternatives (email, video) changing practice in the near future.

Keywords

electronic mail; primary health care; referral and consultation; videoconferencing; telephone.

INTRODUCTION

The need to address the issue of increasing demands on primary care, and to serve populations in remote areas, has prompted the consideration of alternative methods to provide consultations, such as email or internet video (for example, Skype™) in Europe, the US, and Australia.¹⁻⁴ General practice in the UK is under increasing pressure to improve access to patients to address the rise of patient demand within a limited capacity. Several initiatives utilising information and communications technologies have been introduced with a view to reducing GP workload; for example, telephone triage.⁵ A recent document outlining government proposals⁶ suggested that the introduction of alternative methods to provide consultations, such as email or internet video (for example, Skype™), could improve the current provision of primary care in the UK. The Prime Minister's Challenge Fund (PMCF) has provided financial incentives to implement such technologies in England.⁷ The underlying assumptions that drive this rhetoric relate to convenience and accessibility for patients, and an efficient use of practitioners' time.^{8,9}

Despite this rhetoric about how such an approach may improve access and efficiency there is little evidence to support the claims. Evidence to date has assessed the potential impact of some alternatives on clinical

outcomes.^{10,11} Although trial evidence is poor, observational data has pointed towards some clinical benefit, such as improved outcomes for those with diabetes and hypertension,¹² and better monitoring of health concerns,¹³ at least in market driven health systems. Studies have sought opinions from patients and healthcare professionals on whether and how they would use these alternatives^{14,15} but these data have been based on hypothetical opinions rather than experience. Although professional bodies are making tentative steps towards embracing some of the newer technologies¹⁶⁻¹⁸ practitioners are generally more sceptical,¹⁹⁻²² reflecting uncertainty arising from a lack of evidence in the general practice setting and wider concerns about general practice workload.

The aim of this survey was to identify the frequency and range of ways in which general practice teams in five areas of the UK were providing alternatives to face-to-face consultations, or had plans to do so in the future. This information was used to identify potential practices for a focused ethnographic study which is currently underway.

METHOD

A postal survey was sent to all practice managers, GP partners, and salaried GPs ($n = 2719$) at all the practices in and around Bristol, Oxford, Lothian, and the Highlands and Islands of Scotland ($n = 421$). These

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How this fits in

Introducing alternatives to face-to-face consultations in primary care has been proposed as a solution to the increased demands faced in general practice. Politicians, and patients when asked, tend to be keen, but professional bodies and practitioners are sceptical. This study highlights that although the majority of practices offer telephone consultations on a frequent basis, most use email for direct patient care very infrequently, and very few use internet video for consultations with patients. In addition, the majority do not plan to implement these methods in the future. Despite strongly expressed views about the pros and cons of alternative forms of consultation, these are largely speculative.

areas were selected to represent diversity in terms of practice demographics: from urban to rural, inner city to remote, and from affluent to deprived locations, including practices in England that benefited from the PMCF funding. Replies within 3 weeks of receipt were entered into a draw to win an iPad Air®.

The single page survey opened with questions about the age and sex of the responder, followed by two groups of questions. In one group, participants were asked whether their practice currently provided, or planned to provide, consultations with patients via email or electronic messaging, internet video, or telephone. The survey asked participants about the use of bookable telephone consultations (not including triage calls or brief messages) so as to focus on the use of the telephone to replace face-to-face consultations, not as an initial assessment of urgency. Telephone triage is being assessed in more detail in

another concurrent research project.²³ In the other group of questions, participants were asked how often they personally conducted consultations using each of these approaches. Each question in both groups was scored on a 5-point Likert scale. The questionnaire closed with the opportunity for responders to add information 'about any interesting or unusual ways in which you use these different approaches' in a free text box (Appendix 1).

Practices within the English study sites were identified through the relevant clinical commissioning groups' websites. For the practices in Scotland, details were retrieved from the Information Services Division: ISD Scotland website. Information about the practice managers, GP partners, and salaried GPs were accessed via the practice website if one existed. For those practices without a website (53/421, 13%), the information was gained through a telephone call to the practice.

The questionnaires were posted to each of the practice managers, GP partners, and salaried GPs, with the aim of receiving at least one response from each practice. If no response had been received after a period of 2 weeks, a postal reminder was sent to all the GPs and the practice manager within the practice, and 2 weeks after this a telephone reminder was made, if appropriate, to the practice manager.

The primary analysis was at a practice level, with analysis of GPs' personal use of alternative forms of consultation at an individual level. Numerical data were analysed using simple statistical methods supported by Excel 2013 and Stata (version 13.1). When different responses were given by responders within the same practice the authors used the mean result at practice level, rounding to the nearest whole number. The authors explored the extent of variation in response by different individuals within the same practice using the within-practice standard deviation (SD) and the intraclass correlation coefficient (ICC). Responses regarding GPs' own use of alternatives to face-to-face consultation were analysed at individual responder level, and responses from practice managers were excluded from these analyses.

The results from the free text box were analysed thematically using QSR NVivo (version 10) and a visual mind-mapping approach to examining groupings and patterns in the data.²⁴

RESULTS

Response rate

Of the practices approached, 163/186 (88%)

Table 1. Characteristics of the practices that responded to the survey, compared to practices that did not respond

	Responders (95% CI)	Non-responders (95% CI)	P-value
Number of doctors working in the practice	6.05 (5.72 to 6.37)	3.71 (3.22 to 4.20)	<0.001
Number of patients registered to the practice	7732 (7265.90 to 8197.58)	6971 (3780.98 to 5322.68)	<0.001
Deprivation associated with the practice: England (n = 186) ^a	16.62 (15.01 to 18.23)	19.74 (14.65 to 24.84)	0.20
Deprivation associated with the practice: Scotland (n = 235) ^b	7.33 (5.13 to 9.52)	5.76 (3.23 to 8.29)	0.38

^aMeasured by the index of multiple deprivation score. ^bMeasured by the percentage of practices living in data zones defined as the 15% most deprived (population weighted).

Table 2. Practice-level plans to introduce alternatives to face-to-face consultations (n = 421)^a

Does your practice plan to provide the following as an alternative to face-to-face consultations?	No plans to use this	Tried to in the past, less so now	Plan to sometime in the future	Definitely within next 3 months	Already do this frequently	Total
Email or electronic messaging (for example, secure messaging via website) n (%)	169 (53)	66 (21)	51 (16)	14 (4)	18 (6)	318
Internet video (for example, Skype™, FaceTime®) n (%)	273 (86)	31 (10)	13 (4)	1 (0)	0	318
Bookable telephone consultations (not including triage calls or brief messages) n (%)	30 (10)	16 (5)	30 (9)	31 (10)	211 (66)	318

^aAnswers were given on a scale from 1 to 5. Practice means rather than medians are shown for ease of presentation, as medians would require intermediate categories. Preliminary analysis showed no important differences in findings presented as means or medians.

of practices in England and 156/235 (66%) of practices in Scotland responded, giving an overall practice response rate of 76% (n = 319/421). In addition, 40% of English and 25% of Scottish surveys were returned, with an overall individual response rate of 33% (n = 889/2719). The number of responses per practice ranged from 1–11.

Profile of responders

Participating practices were larger (in terms of numbers of registered patients and doctors per practice) than those who did not participate. There were no significant differences between practices in their deprivation score (Table 1). Of the 696 responders who reported their sex, 59% (413/696) were female. Responders categorised their ages as: 25–34 years (n = 90/889, 10%); 35–44 years (n = 239/889, 27%); 45–54 years (n = 362/889, 41%); and ≥55 years (n = 189/889, 21%). Of all responses, 12% (105/889) came from practice managers, and 88% (784/889) from doctors.

The current and planned use of alternatives to face-to-face consultations at practice level

Although the majority of practices reported routinely offering telephone consultations, few (6%) currently provided email consultations (Table 2). More than half of

practices had no plans to introduce email consultations in future, although 20% stated that they intended to do so. None of the responder practices reported offering internet video consultations and very few reported any plans to do so in future. There was also evidence that 21% of practices had previously offered email, and that 10% had previously offered internet video, but that they had subsequently withdrawn these services.

There was some disagreement between responders within the same practice about their practices' use of telephone (within-practice SD 0.91; ICC 0.53) or email consultations (SD 1.1; ICC 0.39). There was less variation between responders about their practices' use of video consultation (SD 0.52; ICC 0.20), related to the very limited use of these consultations in general.

The current provision of alternatives to face-to-face consultations at an individual GP level

The majority of GPs reported personally providing telephone consultations most or every working day (79%). Only 8% reported providing email consultations most or every working day, 45% did so rarely or sometimes, and just under half (47%) never provide email consultations. Furthermore, 99% stated that they never conduct consultations via internet video (Table 3).

Table 3. Individual GPs' use of alternatives to face-to-face consultations (n = 784)

How often do you personally conduct consultations with patients via:	Never	Rarely	Sometimes	Most working days	Every working day	Total
Email or electronic messaging (for example, secure messaging via website)? n (%)	364 (47)	248 (32)	102 (13)	44 (6)	17 (2)	775
Internet video (for example, Skype™, FaceTime®)? n (%)	752 (99)	10 (1)	1 (0)	0	0	763
Bookable telephone consultations (not including triage calls or brief messages)? n (%)	68 (9)	30 (4)	69 (9)	147 (19)	465 (60)	779

Box 1. Free-text quotes that are illustrative of the concerns identified relating to the introduction of alternatives to face-to-face consultations

Concerns for GPs

- Increased access:
*'Increasing access options increases GP stress :{
'Email is a nightmare — access all the time, and hundreds of emails.'*
- Increase clinical risk:
*'It's a personal preference, but I find the increased access too intrusive and increases risk of information getting lost/filed with other documents.'
'We have discussed use of email communication but find there is a risk of emails not being acted upon when certain GPs are on leave, leading to unnecessary risk and delay.'
'I feel the level of risk with these are higher than a face-to-face or phone.'*

Concerns for practices

- Increased workload:
*'If we take on email consultations, we will have possibly hundreds of emails. Who will deal with them?... medicolegal consequences of delay. We have no capacity. This will possibly increase workload.'
'We already get more than 100 emails EACH daily. This would open the floodgates and we would drown. It is unmanageable.'*
- Privacy and confidentiality:
*'Issue with confidentiality using email.'
'Query issues with medicolegal problems and confidentiality.'*
- Challenge of technology:
'Internet connection currently barely up to current software requirements for e-referrals etc. Don't have software and hardware capacity for more modern techniques.'

Concerns around patients

- Disadvantage certain groups, such as the older people:
*'Concern that most vulnerable (deaf/blind/elderly/demented/mentally ill) least able to access, and so unintentionally disadvantaged.'
'Very elderly population — technology difficult.'*

Provision of telephone, email, or video consultations did not vary by GP age or sex, or by study site (data not shown).

Thematic analysis of free-text

All responders were invited to complete a free text box to 'Highlight any interesting or unusual ways in which you use these different approaches as an alternative to face-to-face consulting,' and 249/889 (28%) of the responses included some form of free text.

Rather than answering the question posed, the majority of the responders described their views (usually resistance) on the idea

of introducing email or video consultations. Only a few opinions were related to actual experience, although this did not prevent objections from being strongly expressed, for example:

'Only politicians and the naive would think this a good idea.'

Concerns expressed included the view that adopting email or video consultation would be inefficient for the practice, would increase demand, would be a challenge in terms of privacy and confidentiality, and would increase clinical risk, with medicolegal consequences. A few GPs had experience of some vulnerable and older people who preferred alternative consultation methods, while others thought that these same groups would be disadvantaged. Practical issues, such as the reliance on appropriate internet provision and broadband reliability, the financial outlay, and local concerns about information governance, were mentioned as further barriers to implementation (Box 1).

A few responders mentioned experience of benefits, such as patients being able to send pictures of a transient rash or an audio file of a child's cough, or those who preferred to use email because of communication difficulties or disabilities that made it difficult to get to the surgery. Some also mentioned using email with particular 'selected' patients, and being in email contact with their own GPs (Box 2).

DISCUSSION

Summary

The findings from this survey suggest that, although most practices offer telephone consultations on a frequent basis, email is used infrequently and very few have ever used internet video for consultations with patients. In addition, 10% of the responders said that their practice had tried video consultations but had now stopped. Furthermore, few practices plan to implement these consultation methods in the future. This same picture is replicated in the individual responses. Moreover, these findings remain constant regardless of responders' age, sex, or region (data not shown).

Despite the policy pressure to introduce consultations by email and internet video, there is little actual use of these, and a general reluctance among GPs to implement alternatives to face-to-face consultations. The survey and free text responses underline that both the reluctance and enthusiasm for these alternatives are mainly speculative and reflect the fears of the profession around their burgeoning workload. The limited responses

Box 2. Free-text quotes that are illustrative of the benefits identified relating to the introduction of alternatives to face-to-face consultations

Benefits for GPs

- Used to support the face-to-face consultation:
*'I think patients using media — for example, bringing in photos of their transient rashes, or recordings of their babies cough — are great.'
'In combination with phone consult (and with consent), I have got patients to text me photos of problem — for example, rash, eye inflammation — to help confirm diagnosis or whether need to be seen etc.'
'Would be good to do one way doc-patient communications instead of letters.'*

Benefits for practices

- Workload management:
'We encourage patients to use email to send info to us (stops clogging up the phone lines).'

Benefits for patients

- Advantage for those with physical or communication difficulties:
*'I use email for one patient who has MND [motor neurone disease] and so cannot speak on phone.'
'Email really helpful for deaf patients (who sometimes send me an email before attending a consultation to save time), and for tracheostomy patients.'*

to the free-text element of the survey are indicative of wider concerns. They match what is reported in the existing literature and are being explored in depth in a forthcoming focused ethnography.

Strengths and limitations

This appears to be the first survey designed to assess the use, and planned use, of alternatives to face-to-face consultation in primary care. In this postal survey of general practice in five areas of England and Scotland the authors obtained at least one response from a high proportion of practices (76%). These practices appeared to be representative of all practices approached in terms of size, region, and deprivation. The large number of practices represented in this survey is a strength of this study. The use of free text comments, as well as the closed questions of the survey, has added to the understanding of GPs' concerns, but such data are limited in comparison with other qualitative methods.

Areas were chosen for this survey to include practices with a range of characteristics: from urban to rural, inner city to remote, and from affluent to deprived locations. Such practices may have differing incentives to implement alternatives to face-to-face consultations, and there will always be local policy differences to take into consideration too. The authors acknowledge that practices in other areas of the UK may be using these and other alternatives to face-to-face consultations.

Offering consultations using an alternative medium is controversial. Therefore it is possible that some responders would be reluctant to admit to using email or internet video. Furthermore, there is a risk of a response bias, particularly with the free text responses. Those who respond may have a particular standpoint on the subject of enquiry.²⁵ As such, the authors acknowledge that the findings from this survey may not necessarily be generalisable, although they offer an insight into the current use of alternatives to face-to-face consultations.

Comparison with existing literature

Although the use of alternatives to face-to-face consultations had been recognised previously,²⁶ the level of such activity reported in this study is less than previous estimates reported from surveys conducted in Europe.^{27,28} Furthermore, in contrast to popular belief, fewer practices offer email or internet video consultations than often envisaged.²⁹

In 2012, the policy of the UK Department of Health was for patients to be able to

communicate electronically with their health and care team by 2015.³⁰ This target has not been achieved, but several pilots have been funded by the PMCF⁷ which examines the use of email and other electronic means of consultation with patients. However, as recommended in the recent report by the Primary Care Workforce Commission, more evidence is required before email or internet video consultations can be recommended as a routine part of primary care.³¹

This research identified that some responders felt the need to resist a perceived pressure to adopt alternative approaches to consultations that have been claimed to have a potentially transformative impact on general practice.⁵ This is despite proposed advantages in terms of access and resource use,²⁹ particularly as the use of the web, telephone, or text would be a natural development based on their use in other spheres of life.³² The free-text responses revealed concerns about the perceived risks to patients, the organisation, and practice staff. This finding echoes the concerns voiced in recent surveys of GPs' attitudes towards the use of alternatives to face-to-face consultations.^{16,19,22} Similarly, the concern found in the literature about how and when to use alternatives to face-to-face consultations was upheld.^{20,21} However, 21% of practices reported having tried using email, and 10% using internet video, despite a general antipathy towards their introduction, and had since reduced such use. This may provide support for these concerns. There were also a few positive accounts of experiences and an acknowledgement of when, how, and for whom these alternatives may be beneficial, reflecting previously reported findings.^{11,20,33}

Implications for research and practice

Due to the limited use of email or internet video within the responder group, in keeping with previous literature, the concerns listed are based primarily on perception and anecdote.²¹ This general reluctance to adopt alternatives to face-to-face consultations is therefore unlikely to change without a change in policy. As recommended in the recent report by the Primary Care Workforce Commission, more evidence is required before email or internet video consultations can be recommended as a routine part of primary care.³¹

This survey is the precursor to a focused ethnographic study of practices who either currently offer, are about to introduce, or have ceased to offer, an alternative method of consultation. This will focus on experiences and opinions when use is realised and not hypothesised.

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Ethical approval

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Provenance

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Competing interests

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Alternatives to face to face consultation in general practice.



All replies received within 3 weeks of receipt of this questionnaire will be entered into a draw to **win an iPad Air!** The winner will be notified on 5th April 2015.

Please tick as appropriate: Your age group: 25-34 35-44 45-54 55+
 Sex: Male Female

How often do you personally conduct consultations with patients via:
(Note: This would not include communication with other doctors or referrals etc.)

	Never	Rarely	Sometimes	Most working days	Every working day
Email or electronic messaging <small>(e.g. secure messaging via website)</small>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Internet video <small>(e.g. Skype, Facetime)</small>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bookable telephone consultations <small>(not including triage calls or brief messages)</small>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Does your practice plan to provide the following, as an alternative to face to face consultations?

	No plans to use this	Tried to in the past, less so now	Plan to, sometime in the future	Definitely within next 3 months	Already do this frequently
Email or electronic messaging <small>(e.g. secure messaging via website)</small>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Internet video <small>(e.g. Skype, Facetime)</small>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bookable telephone consultations <small>(not including triage calls or brief messages)</small>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If you wish to highlight any interesting or unusual ways in which you use these different approaches as an alternative to face to face consulting, please tell us below.
 We would also like to know if you have tried to use these approaches, but have changed your plans.

If you would prefer to send us an email then please do to: Heather.Brant@bristol.ac.uk

Thank you for your help. Please return this questionnaire in the enclosed stamped addressed envelope to: Dr Heather Brant, University of Bristol, Canynge Hall, 39 Whatley Road, Bristol BS8 2PS. Tel: 0117 9287249, Email: Heather.Brant@bristol.ac.uk

Study ID

Appendix 1. Postal questionnaire sent to practice managers, GP partners, and salaried GPs.