The potential of alternatives to face-to-face consultation in general practice, and the impact on different patient groups: a mixed-methods case study

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Declared competing interests of authors: Helen Atherton has received fellowship funding from the National Institute for Health Research (NIHR) School for Primary Care Research (SPCR) during the conduct of the study. Chris Salisbury is a member of the NIHR Health Services and Delivery Research board.

Published June 2018
DOI: 10.3310/hsdr06200

Scientific summary

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Health Services and Delivery Research 2018; Vol. 6: No. 20
DOI: 10.3310/hsdr06200

NIHR Journals Library www.journalslibrary.nihr.ac.uk

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Background

There is international interest in the potential role of different forms of communication technology to provide alternatives to face-to-face consultations in health care, with several countries routinely offering these in primary care settings. In the UK, there has been considerable rhetoric from policy-makers about the potential for consultations conducted by telephone, e-mail or internet video to alleviate staff workload and improve patient access.

Despite this pressure, most general practices have been slow to adopt the use of alternatives to the face-to-face consultation, citing concerns about their potential impact, particularly on workload. The underlying assumptions that drive the policy rhetoric relate to convenience and accessibility for patients, and an efficient use of practitioners' time. However, there is little evidence to support either the concerns of practices or the assumptions of policy-makers.

The existing literature is largely based on the speculative opinions of patients and doctors about the advantages and disadvantages of alternative methods of consultation. This project builds on previous research by focusing on the experiences of patients and practitioners who have used these alternatives to the face-to-face consultation with different groups of patients for different purposes. Using a theory-based evaluation approach, we sought to understand how, under what conditions, for which patients and in what ways alternatives to face-to-face consultations may offer benefits to patients and practitioners in general practice. We sought to use this understanding to develop both recommendations for general practices and a framework for subsequent evaluation.

Objectives

Our study covers the first stages of the Medical Research Council (MRC) complex intervention framework, that is, identifying the evidence base, developing a theory, and modelling process and outcomes. It utilises a mixed-methods case study design.

Identifying the evidence base

1. We conducted a conceptual review, synthesising the literature (qualitative and quantitative) on patients' and practitioners' experiences of alternatives to face-to-face consultations, with particular focus on the views of different groups of patients and factors that promote or hinder the wider implementation and uptake of these alternative forms of consultation.

Developing a theory

2. We used a scoping exercise to identify the range of ways in which general practices in England and Scotland are currently providing alternatives to face-to-face consultations.
3. We identified and recruited eight demographically diverse practices, each implementing a range of alternatives to face-to-face consultations, to act as focused ethnographic case studies.
4. In case study practices, we explored how the practice context, patient characteristics, type of technology and purpose of the consultation appeared to interact to determine the feasibility and impact of alternatives to face-to-face consultations, from the perspectives of both patients and staff. This included the impact on the clinician–patient dynamic. The impact on isolated, disabled, disadvantaged and other vulnerable or hard-to-reach groups was a particular focus.
5. We sought to identify the factors that acted as the main barriers to, and facilitators of, the wider use of these alternatives.

Modelling process and outcomes

6. We used the findings to develop guidance and a website resource for general practice, detailing the most promising applications of alternatives to face-to-face consultations for different patient groups, for different purposes and in different practice and population contexts.
7. Treating the provision of alternatives to face-to-face consultations as an intervention, we developed a framework for future evaluation. We clarified the target population, appropriate outcome measures and the best methodological approach for this evaluation.

Methods

We used a mixed-methods case study design. Our study focused on alternatives to face-to-face consultations, which included telephone consultations, e-mail, e-consultations and internet video. We excluded the use of the telephone for the initial assessment of all requests for consultation, as this was the focus of a parallel study.

Conceptual review

We conducted a conceptual review, using an approach informed by realist review – a method for synthesising research evidence regarding complex interventions. We sought to identify explanations of why and how various alternatives to face-to-face consultations might work (or not) in primary care. We conducted a search for evidence using databases, snowballing and our existing knowledge of the literature. We appraised the articles and extracted ideas and material that were relevant to the research question, before synthesising the findings to produce a conceptual map of the evidence. The findings of the review fed directly into a case study guide used to support the ethnographers, in relation to the scope of data collection, in conducting the focused ethnography.

Scoping survey

We conducted a scoping exercise. We sent a postal survey to all the practice managers, general practitioner (GP) partners and salaried GPs ($n = 2719$) at all the practices in and around Bristol, Oxford, Lothian and the Highlands and Islands of Scotland ($n = 421$). This was supplemented by four further approaches: (1) exploring the practices' websites, (2) contacting companies that offer support in providing alternatives to face-to-face consultations, (3) utilising local and national links with those working in primary care and (4) utilising existing knowledge within the team. Based on the exercise, we constructed a matrix of practices, detailing various practice characteristics in relation to their use of alternatives to face-to-face consultations.

Focused ethnographic case studies

The case study sites were general practices identified in the scoping exercise and selected as having differing levels of experience of implementing different combinations of alternatives to face-to-face consultations.

The ethnographic team consisted of five researchers: a day-to-day lead, a senior lead and three ethnographers working in the field. One ethnographer was based at each practice. Data were gathered through non-participant observation, informal conversations and semistructured interviews with practice administration staff, GPs and patients. Practice documents and protocols on alternatives to the face-to-face consultations were reviewed. Anonymised data about consultations were collected, and these contributed to a quantitative analysis.

Collection and analysis of routine consultation data

We extracted pseudo-anonymised data from computerised records at case study practices, including patient demographic details and all clinical consultations within the same 12-month period. These data were exported, merged, cleaned and analysed to explore the numbers and characteristics of patients using

different types of consultation. This exercise allowed us to assess the feasibility of using routinely collected data to assess the number of consultations of different types in UK general practice.

Synthesis of the findings

We synthesised the findings from each element of the study, before optimising and validating them by sharing them with stakeholders at a workshop. From the synthesised findings, we developed a web resource for practitioners and policy-makers, which outlines things to consider when thinking about the introduction of alternatives. We also derived a framework and recommendations for future research.

Results

We found that alternatives to the face-to-face consultation were not in widespread use in general practice in the UK, with the exception of telephone consulting. In the scoping survey, we found barely any use of video consulting and very little use of e-mail or electronic consultation. Bookable telephone consultations were used by most, but not all, of the GPs surveyed. When asked about intentions to introduce alternatives to the face-to-face consultation, the majority of practices reported no plans to use video or electronic messaging. Thus, despite the policy pressure to introduce consultations by e-mail and internet video, there was little actual use and a reluctance among GPs to implement alternatives to face-to-face consultations other than telephone consulting. Even in the eight case study sites, selected because alternatives to face-to-face consultation were in use, or had been in use, actual levels of uptake were very low. Across all of the case study practices, the vast majority of consultations (80%) were still conducted face to face in surgery.

In our case study practices, the uptake of e-mail consultation was linked to the way in which GPs were offering this type of consultation, doing so selectively and basing their decisions on patient characteristics. For other alternatives to the face-to-face consultation, the role of reception staff was crucial in offering these consultation types. The conceptual review had identified a lack of evidence on how the wider practice team influences this uptake, and, in focusing on these staff members in our focused ethnography, we found that receptionists and administrators could have a key role in ensuring that new consultation methods were taken up by patients. Despite low use and uptake, our case study practices were all using alternatives to the face-to-face consultations. In the case studies, we were able to explore the rationale for introducing alternatives to the face-to-face consultation. The rationales included:

- the desire to be a modern practice and respond to the expectations of busy, time-poor patients
- the acknowledgement that alternatives may be the only way of providing health care for patients in remote locations or with other barriers to attending the practice
- the acknowledgement that the previous system was broken and unethical in providing a ‘first come, first served’ system that left patients without appointments that they needed
- the recognition that reception staff and telephone lines were overwhelmed
- the desire to manage demand and improve efficiency.

Rationales were not exclusive to individual practices; different team members had different rationales, and rationales also differed according to the type of alternative to the face-to-face consultation.

The conceptual review showed that health-care professionals worry about certain patient groups being disadvantaged by alternatives to the face-to-face consultation, but this was speculation from the perspective of the health-care professional. The patients interviewed in our case study sites included many from disadvantaged groups. For patients, any benefits of alternatives to the face-to-face consultation lay in the characteristics of the medium (e.g. remote, asynchronous or text based). Regardless of being in a disadvantaged group or not, patients liked the efficiency and convenience offered by alternatives to the face-to-face consultation. Both health-care professionals and patients agreed that there were certain conditions or issues that would require a face-to-face consultation. Health-care professionals made assumptions about the types of patients who were potentially suitable for engaging in alternatives to the

face-to-face consultation, referring to the 'sensible patient' or 'exceptions.' For both patients and staff, there were times when alternatives to the face-to-face consultation represented a 'second best', and this was particularly the case with telephone consultation, which, among the alternatives that we examined, was used most frequently and was universally well integrated within the practices.

Our examination of routine consultation data meant that we could explore the characteristics of patients engaging in alternatives to the face-to-face consultation. Within the case study practices, the pattern of consultation rates was broadly in line with what we would expect, with higher rates in children and the elderly, in women, in patients from ethnic minority groups and in patients with multimorbidity. Surgery consultation rates were slightly higher in the least deprived areas, and telephone consultations were slightly higher in the most deprived areas, but otherwise there was no strong relationship with deprivation for these consultation types. However, for electronic consultations, some of these patterns were reversed, with the highest rates in young adults and white patients. There was also a trend towards higher rates of e-mail consultations in the less deprived areas. However, this finding should be treated with caution, because of the very small number of e-mail consultations.

We have synthesised our findings to develop a web resource aimed at GPs, practice staff and commissioners. Given the variability in the rationale for and implementation of alternatives, the principal objective of the resource was to provide a self-appraisal and guidance tool. It was envisaged that potential users could dip in and out of the resource depending on what stage of implementation they were at. The key themes from our analysis were used to produce five key headings that were felt to be useful for practices:

1. Why do you want to introduce an alternative to face-to-face consultations?
2. Which alternative to the face-to-face consultation are you interested in?
3. Who is it for and why?
4. How do we get it right?
5. How will we know if it has worked?

In line with the 'modelling process and outcomes' phase of the MRC's guidance on complex interventions, we used our findings to develop a framework for future evaluation of the use of alternatives to face-to-face consultations. This included key parameters determining the feasibility of research and considerations about the target population, type of technology to be evaluated and appropriate outcome measures.

We also identified a range of questions that require further research:

- Is it possible to improve the uptake of alternatives to face-to-face consultations and, if so, does this lead to benefits for patients and general practices?
- What is the impact on access to care as perceived by patients (speed of access, convenience, timely access to care that meets their perceived needs)?
- What is the impact on the NHS workload and, in particular, the impact on different sectors of the NHS (primary and secondary care) and different professional groups (doctors, nurses, receptionists and administrative staff)?
- What is the impact on the quality and safety of patient management?
- For which patients and for which conditions are different forms of alternatives most efficient and effective?
- How do different forms of consultation change the content of the consultation?
- How satisfied are clinicians and patients with different forms of alternatives to face-to-face consultations?

Although we have used qualitative methods to explore some of these questions and to generate hypotheses, more research is now needed to test these hypotheses, in some cases by using trial methodologies to assess uptake or effectiveness. Future research may need to use different methods and explore different questions for each of the different technologies. However, unless or until uptake of e-consultations or video consultations increases, any attempt to measure the impact will be of doubtful value.

Conclusions

Alternatives to the face-to-face consultation are not currently in mainstream use in general practice, and we observed low uptake in our case study practices. We have identified the underlying assumptions and logic that patients and staff report in relation to the use of these alternatives, and have shown that different stakeholders have different perspectives of what they hope to achieve through the use of alternatives to face-to-face consultations. Through observation of real-life use of different forms of alternative, we have gained an understanding of how, under what circumstances and for which patients such alternatives might result in benefits or in potential unintended adverse consequences. We have used this understanding to develop a framework and recommendations about future evaluation of the use of alternatives to face-to-face consultations. The low uptake of alternatives coupled with the lack of clear evidence of benefit may influence their uptake on a wider scale, something that policy-makers currently favour. We have highlighted key issues for practices and policy-makers to consider, and have made recommendations about priorities for further research to be conducted before or alongside the future roll-out of alternatives to face-to-face consultations.

Funding

Funding for this study was provided by the Health Services and Delivery Research programme of the National Institute for Health Research.

Health Services and Delivery Research

ISSN 2050-4349 (Print)

ISSN 2050-4357 (Online)

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Editorial contact: journals.library@nihr.ac.uk

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This report

The research reported in this issue of the journal was funded by the HS&DR programme or one of its preceding programmes as project number 13/59/08. The contractual start date was in November 2014. The final report began editorial review in February 2017 and was accepted for publication in June 2017. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The HS&DR editors and production house have tried to ensure the accuracy of the authors' report and would like to thank the reviewers for their constructive comments on the final report document. However, they do not accept liability for damages or losses arising from material published in this report.

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