THE NATIONAL PROGRAMME FOR IT (NPFIT) IN ENGLAND
How Can Clinicians be Encouraged to Use the Choose and Book Service?

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Abstract: In recent years, there has been increasing attention towards developing person-based electronic information systems in different countries. In England, the Choose and Book Service, a key component of the National Programme for IT (NPfIT) in England aims to offer patients the facility to choose and book their hospital appointments at a time, date and place convenient for them. However, anecdotal evidence suggests limited uptake and use of this service by clinicians. However, there has been limited evaluation of the service. The aim of this research was to explore clinicians' perceptions of the Choose and Book service. A qualitative approach, using in-depth, semi-structured interviews was used to collect data from clinicians. Framework Analysis was used to analyse the data. A main sub-theme emerging from the analysis was encouragement for the clinicians. Although both GPs and consultants were positive about the benefits of Choose and Book for patients, they saw no or limited advantages for themselves. Clinicians noted a number of factors that would help to encourage them to use the Choose and Book service. Deployment of information systems does not mean that users will necessarily use it in their practice. Depicting a broader picture of benefits for different user groups, improving the usefulness and the reliability of information systems and rewarding users are among the approaches that could help to encourage users.

1 INTRODUCTION

In recent years, different information strategies and programmes have been developed in England with the ultimate aim of improving care delivery through improving the accessibility of information at the point of need (Burns, 1998; NHS NPfIT, 2004).

A key element of these programmes, has been the development of an electronic booking system (Fleet and Blandford, 2005), now called the 'Choose and Book service' (Department of Health, 2002). This service enables patients to choose and book their first outpatient appointments from a choice of hospitals or other alternative providers (Department of Health, 2004). Implementing the Choose and Book service is regarded as a reform in delivery of healthcare services, because this service can empower patients by helping them to make their informed decisions (Miller and May, 2005).

The deployment of the Choose and Book service can bring benefits for patients and primary care settings as well as secondary care providers. For example, this service can improve patient certainty and improve the speed of the referral process (Walford, 2006). In addition, 'Choose and Book' can facilitate chasing referrals in both the primary and secondary care settings (Department of Health, 2004).

However, similar to other information systems, the deployment of services like 'Choose and Book' cannot guarantee the usage of these systems (Department of Health, 2004). As Sittig et al. (1999) noted, unless key user groups, such as physicians and other clinicians use these systems, many of the intended benefits, such as improving patient care may not be achieved.

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With regard to the Choose and Book service, there has been anecdotal evidence of limited uptake and use of this service. Clinicians who did not use the service noted that Choose and Book was both difficult to use and time-consuming because navigating the system for choosing appropriate clinics was not always straightforward (Rhys, 2006). However, there has been limited empirical research evaluating 'Choose and Book' and further research is necessary to investigate clinicians' views and experiences of the Choose and Book service, and to understand factors that influence use of the service. The aim of the study described here was to evaluate clinicians' views on the Choose and Book service.

2 METHODS

This qualitative study was conducted through using in-depth, semi-structured interviews in August-December 2007. The settings for this study were General Practices and one NHS hospital in the north of England. The participants of the research were clinicians (General Practitioners and hospital consultants) and non-clinicians (administrative staff both in practices and hospital and departmental managers in the hospital) who were either users of the service or had views about it.

Before data collection a favourable ethics opinion was obtained from one of the Local Research Ethics Committees (LREC) in the UK National Health Service (NHS). Before undertaking interviews, a participant information sheet was sent to a random sample of staff and they were asked to sign a consent form to indicate that they agreed to be interviewed. Interviews were digitally recorded and then transcribed verbatim. To analyse the interview data, the method of Framework Analysis, developed in the context of applied policy research, was used (Ritchie and Spencer, 1994). In this study, data were analysed by one of the researchers (RR), and coding of data was facilitated by using QSR NVivo 7 software.

3 RESULTS

3.1 Participants' Characteristics

Twenty clinicians including 14 General Practitioners (GPs) and six hospital consultants (specialists) were interviewed. The interviews lasted between 27 and 75 minutes (mean = 42

minutes). Twelve of the interviewees were male and the rest of them were female. The age range was 36 to 57 years old and above. In order to maintain the confidentiality of the participants' information during data analysis and in reporting the findings, the identities of participants were anonymised, and here they are described as being a GP or a consultant.

3.2 Interview Results

In all of the practices, a combination of electronic Choose and Book and paper-based referral was used. Even in practices in which 'Choose and Book' was the preferred method of referral, the traditional paper-based process was still used, for example, to refer a patient to a named clinician or when the preferred care provider or service was not available on the system. In the hospital, there was a specific office for Choose and Book referrals, in which a group of administrative staff were in charge of managing the electronic referrals.

A sub-theme emerging from the analyses was the encouragement that clinicians might receive for using the Choose and Book system.

3.2.1 Approaches for Clinicians' Encouragement

When the interviewees discussed approaches that could help to improve the usage of Choose and Book, they suggested methods, such as considering financial incentives, demonstrating benefits of the system, and improving system from technical point of view.

With regard to financial incentive, the current approach was that practices that do a certain number of referral through Choose and Book would receive financial support, and the GPs were paid for the amount of time that they were spending on working with the system. In relation to this, a GP noted:

'There is a recognition of that time, in that we get a payment for using Choose and Book and I don't think you can make that kind of change, in general practice, without producing some payment' [GP14].

However, some interviewees noted that using the system during consultation would increase the consultation time. In support of this, a GP said:

'..., I would then go to the appropriate Choose and Book system that I wanted, and either it wouldn't let me book anything or frequently the clinic I wanted wasn't available on Choose and

Book. It took such a long time, often to get absolutely nowhere,…' [GP11].

Some GPs noted that the incentive they received for working with the system did not meet their expectations. For example, a GP said:

'…, if you added up all that extra doctor time, I am not really sure if, the money that we get gets anywhere near the actual time we put in' [GP5].

Another important point mentioned by the interviewees was that although the approach of being paid for using the system might help to develop practices, it is not really an appropriate method for encouraging clinicians. When they were asked to explain further, a GP who had decided to stop using the system said:

'…, there are times when incentives are of limited use because of there isn't the capacity to absorb it. It doesn't matter what incentive is given it can't be done' [GP13].

Another approach suggested for encouraging clinicians was convincing them that there are benefits for both clinicians and patients. Both consultants and GPs noted that the system should bring some benefits for its users. One of the consultants said:

'The only way you can persuade people to use information systems is to prove it is useful' [Consultant1].

In support of this, another consultant added:

'Consultants have to be convinced of the benefits of an electronic booking system, they have to see that it's at least as good as what we currently have or better' [Consultant3].

Obviously, an example of an information system being useful could be the ability of the system to make the clinicians' job easier by saving their time. One of the consultants mentioned:

'The only way is that you show it takes less time to do Choose and Book in a way of accepting, because all clinicians have to get letters and we have to grade them and make decisions about them' [Consultant3].

Concerning the benefits, it should be said that clinicians seemed reluctant to use IT in their job if there was no direct benefit or clinical use for it. Although some GPs and consultants noted that using this system would, for example, help GPs to make sure that appointments for their patients were available when they were leaving GP surgeries, others saw little or no value in using the system by clinicians. For instance, a GP said:

'From our point of view, I don't really see any from the doctors' point of view, I don't see any great advantages' [GP5].

Some GPs noted that the process of electronically choosing clinics and booking appointments is not regarded as a clinical task, but it is an administrative task. A GP mentioned:

'I don't think there is any way you will encourage doctors to do administrative work, now using IT for clinical issues is different altogether… but if there is no clinical relevance to a doctor you will not get them to do it' [GP7].

With regard to showing benefits, some consultants noted that the benefits of an information system should not be limited to benefits for clinicians, and they might be happy to use the system if there were benefits to the patients and in the healthcare settings. A consultant suggested that:

'The benefit does not have to be to them, it may be a benefit to a patient, and it may be a benefit to the hospital. You have to demonstrate a benefit' [Consultant1].

Similarly, a GP said:

'when you go on Choose and Book I get appointments for people in like 2 weeks or 1 week, very quickly so that's a good incentive' [GP12].

Apart from the factors mentioned above, a consideration of the technical issues was of great importance to encourage clinicians to use the system. For example, reliability was a main technical feature that could be both encouraging and discouraging. A consultant mentioned:

'You implement it and then you show that it works. So, the first problem you get, people will say "oh, it won't work", or "we can't use it", or "it takes too long"' [Consultant6].

The consultants generally used the paper-based system of accepting, rejecting or directing the referrals, and at the time of the interview they had no access to the system. However, some of them were interested to try the system to see whether there would be any benefit for them or check the system to make sure about the reliability of it. Some consultants noted that a factor influencing the decision whether or not to use Choose and Book could be certainty about the reliability of this system. In relation to this, a consultant said:

'I think there is a certain amount of uncertainty as to how robust the Choose and Book system is. People are just not sure that it will work. I think that would be one thing' [Consultant3].

Similarly, to indicate the importance of reliability in encouraging clinicians, a GP said:

'I think if it worked more often, if the system didn't keep failing, then we would use it more often

because if you try and use it and it fails then you are not going to do it'[GP9].

Another important technical factor that had a considerable impact on encouraging clinicians was the speed of the system. Both GPs and consultants noted that the speed of system was a factor that could help to encourage clinicians to use it. It seems that the speed of the system has improved recently and GPs were more satisfied with this technical aspect of the system. In reference to this, one of the GPs mentioned:

'We have got incentives to use the system as it gets faster, and it's an awful lot better than it was, and we are using it'[GP4].

It seemed that, there would be better use of the system if more attention was paid to encouraging clinicians' to use it and to developing the system by involving users and addressing their concerns.

4 DISCUSSION

Successful implementation of information systems when clinicians see no, or limited, clinical benefits would be difficult, and this would be challenging when information systems add extra time to clinical practice (Øvretveit et al., 2007).

Our results showed that clinicians, especially the GPs, were concerned about the impact of the Choose and Book system on their workload and noted that using system in consultation influenced their productivity in terms of number of patients that they could see in surgeries. Pothier et al. (2006) noted that allocating extra time for using the system within the consultation is challenging for time-pressured GPs. In this case, clinicians were encouraged to use the system by giving financial incentives to practices that made a certain number of referrals through Choose and Book. Although some practices may meet this requirement and, as a result, gain this financial support, achieving the required number of referrals may be difficult, or impossible, for some practices because of the number and type of their referrals that can not always take place through Choose and Book. In such cases, these practices could be penalised, rather than being encouraged, because of their inability to meet the required criteria. For this reason, much stronger motivators should be applied, such as further development of the system based on users' needs and expectations to improve their acceptance (Collins et al., 2005). Inadequate attention to this important aspect, as Hendy et al. (2005) suggested, may lead to clinicians'

resistance; in this study, we found GPs who stopped using the Choose and Book because they found it inappropriate for patient referrals.

Another important factor that can help to encourage clinicians to use an information system can be the potential benefits of the system. GPs and consultants noted that there would be no, or limited, clinical benefit for them from using the Choose and Book system, and this was a reason for their reluctance to use the system. However, the benefits of the system are not limited to clinicians, and there are several benefits for patients, which range from improving patients' certainty about their appointments to improving the speed of the referral process (Collins et al., 2005; Cummings and Mitchell, 2005). Therefore, attention should be paid to making clinicians aware of a broader picture of the advantages that can be achieved through using the system. Obviously, before convincing the clinicians, there should be some technical and non-technical improvements. For example, improving the reliability of the system (Kirkley and Rewick, 2003) and minimising system downtime (Lium et al., 2008) could be an important technical improvements.

5 LIMITATIONS OF THE STUDY

A limitation of this study was that we only interviewed consultants in one NHS hospital, and the results may not be transferable to all NHS hospitals. In addition, at the time of the interviews, the system was still being developed and implemented. Therefore, the views of the consultant may now be different if they now have access to the system. However, the study proved to be useful in terms of addressing issues that General Practices experienced, and the results could be useful in suggesting approaches for improving the electronic Choose and Book process.

6 CONCLUSIONS

Implementation of information systems in healthcare cannot guarantee the use of, and satisfaction with, these systems. Implementation and development of information systems, especially when users realise that these do not fit in with their way of working and do not improve their performance is challenging. Approaches that could help to improve the use of information systems,

such as Choose and Book include: paying adequate attention to users' expectations, improving users' understanding of benefits and current developments of the system and finally, improving technical aspects in further developments.

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