

Obtaining patient feedback in an outpatient lithotripsy service is facilitated by use of a touch-screen tablet (iPad™) survey

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Abstract There is now a requirement for every doctor in the UK to obtain patient feedback for revalidation. This can be an onerous and time-consuming task. The objective of this study was to evaluate a novel electronic patient feedback method in an outpatient lithotripsy service setting. Between September 2013 and January 2014, 100 patients attending an outpatient lithotripsy service in Oxford were asked to complete a selection of pre-approved NHS questions about the service they had received. Questions were presented on a tablet device (iPad™) and answered using the touch screen. Departmental staff were unaware of the questions in the survey. Patients were asked to complete the survey by an independent research nurse. Questions were created online in a free-to-use web-based survey application and presented on the tablet device in a user-friendly format via an application. Data were uploaded via wifi™ to the online system. Data were viewed, automatically analysed and displayed graphically. The age range of the patients surveyed was 20–80 years of age. All 100 patients completed the survey without difficulty. All patients answered every question. Data could be automatically viewed, analysed and presented graphically. This method of collecting patient feedback proved to be rapid and efficient. The feedback highlighted a high patient satisfaction with the lithotripsy service. A touch screen tablet device is an efficient and effective method of collecting truly objective patient feedback. This method of patient feedback could be employed in other clinical environments to collect data for revalidation purposes.

Keywords iPad™ · Feedback · Revalidation · Lithotripsy

Introduction

In December 2012 revalidation was introduced for all practicing doctors in the UK by the General Medical Council (GMC). The majority of doctors will have to undergo their first revalidation by March 2016. Revalidation is the process by which licensed doctors are required to demonstrate that they are fit to practice. Doctors will have to revalidate quinquennially.

GMC guidelines outline six types of supporting information that must be provided for discussion at appraisal at least once in each 5-year cycle: continuing professional development, quality improvement activity, significant events, feedback from colleagues, feedback from patients and a review of complaints and compliments [1].

Patient feedback is intended to help doctors to reflect on their practice and support their professional development by providing them with information about their practice through the eyes of those treated. Seeking feedback using a questionnaire enables patients' views about a doctor's practice to be gathered in a systematic way. However, collection of patient feedback is potentially an onerous and time-consuming task because questionnaires should be distributed by an independent person (to avoid potential selection bias and coercion of patients) and data from paper questionnaires need to be converted into an electronic format to for analysis and presentation.

Our objective was to evaluate the use of a tablet device (iPad™) to collect patient feedback electronically in an outpatient lithotripsy setting. To our knowledge,

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this is the first study to evaluate this method of patient feedback.

Methods

Between September 2013 and January 2014, 100 patients attending for lithotripsy were asked to provide electronic feedback about the lithotripsy service after their treatment. All patients received the same treatment on a Storz modulith F2 lithotripter. All patients received the same pre-procedure analgesia, antibiotics, and antiemetic. Lithotripsy was delivered according to our standard protocol with audiovisual distraction as described previously [2]. Prior to discharge, patients completed 17 questions on a touch screen device (iPad™) (Table 1). Departmental staff (radiographers and nurses) were not involved in choosing the questions and were unaware of the questions in the survey. Patients were asked to complete the survey by an independent research nurse in private. Patients did not receive or need any instruction and completed the survey without direction from the research

nurse. The iPad™ was mounted in a secure stand (Bouncepad). Questions were selected from a pre-approved list of day-case surgery and outpatient clinic NHS feedback questions. Questions were entered online in a free-to-use survey application (QuickTapSurvey) and presented on the tablet device in a user-friendly format (Fig. 1). Answering each question required single touch selection and did not require text entry. Data from the iPad™ were uploaded via wifi™ to the online system. Data were viewed and then automatically analysed and displayed graphically.

Results

The patients surveyed were 62 % male and 38 % female and from a wide range of age groups (20s–70s) which reflects the epidemiology of stone disease [3]. All patients completed every question without difficulty. Data were presented in a user-friendly format with simple touch-screen options (Fig. 1). Data were collected in several areas including patient demographics, the

Table 1 Questions and answer options

Question	Options
1 What is your gender?	M/F
2 Which decade were you born in?	20s, 30s, 40s, 50s, 60s, 70s, 80s, 90s
3 From the time you first talked to a doctor about being referred for lithotripsy, how long did you wait for today's treatment?	<1 month/1–2 months/3–4 months/5–6 months/more than 6 months/don't know
4 How do you feel about the length of time you were on the waiting list before your admission to hospital?	I was admitted as soon as I thought was necessary/I should have been admitted a bit sooner/I should have been admitted a lot sooner
5 When you were told you would be going into hospital, were you given enough notice of your date of admission?	Yes, enough notice/no, not enough notice
6 Were you given a choice of admission dates?	Yes/no/don't know or can't remember
7 Was your admission date changed by the hospital?	No/yes, once/yes, 2 or 3 times/yes 4 times or more
8 Before being admitted to hospital, were you given any printed information about your condition or treatment?	Yes/no
9 How organised was the admission process?	Very organised/fairly organised/not organised at all
10 How would you rate the courtesy of the staff that admitted you?	Excellent/very good/good/fair/poor/don't know/can't say
11 Beforehand, did a member of staff explain the risks and benefits of lithotripsy in a way you could understand?	Yes, completely/yes, to some extent/no/i did not want an explanation
12 Beforehand, did a member of staff explain what would be done during the operation or procedure?	Yes, completely/yes, to some extent/no/i did not want an explanation
13 Beforehand, were you told how you could expect to feel after you had the operation or procedure?	Yes, completely/yes, to some extent/no
14 Overall, did you feel you were treated with respect and dignity while you were in the hospital?	Yes, always/yes, sometimes/no
15 How would you rate how well the lithotripsy team worked together?	Excellent/very good/good/fair/poor
16 Overall, how would you rate the care you received during your lithotripsy session?	Excellent/very good/good/fair/poor
17 Would you recommend the lithotripsy service to your family and friends?	Yes, definitely/yes probably/no

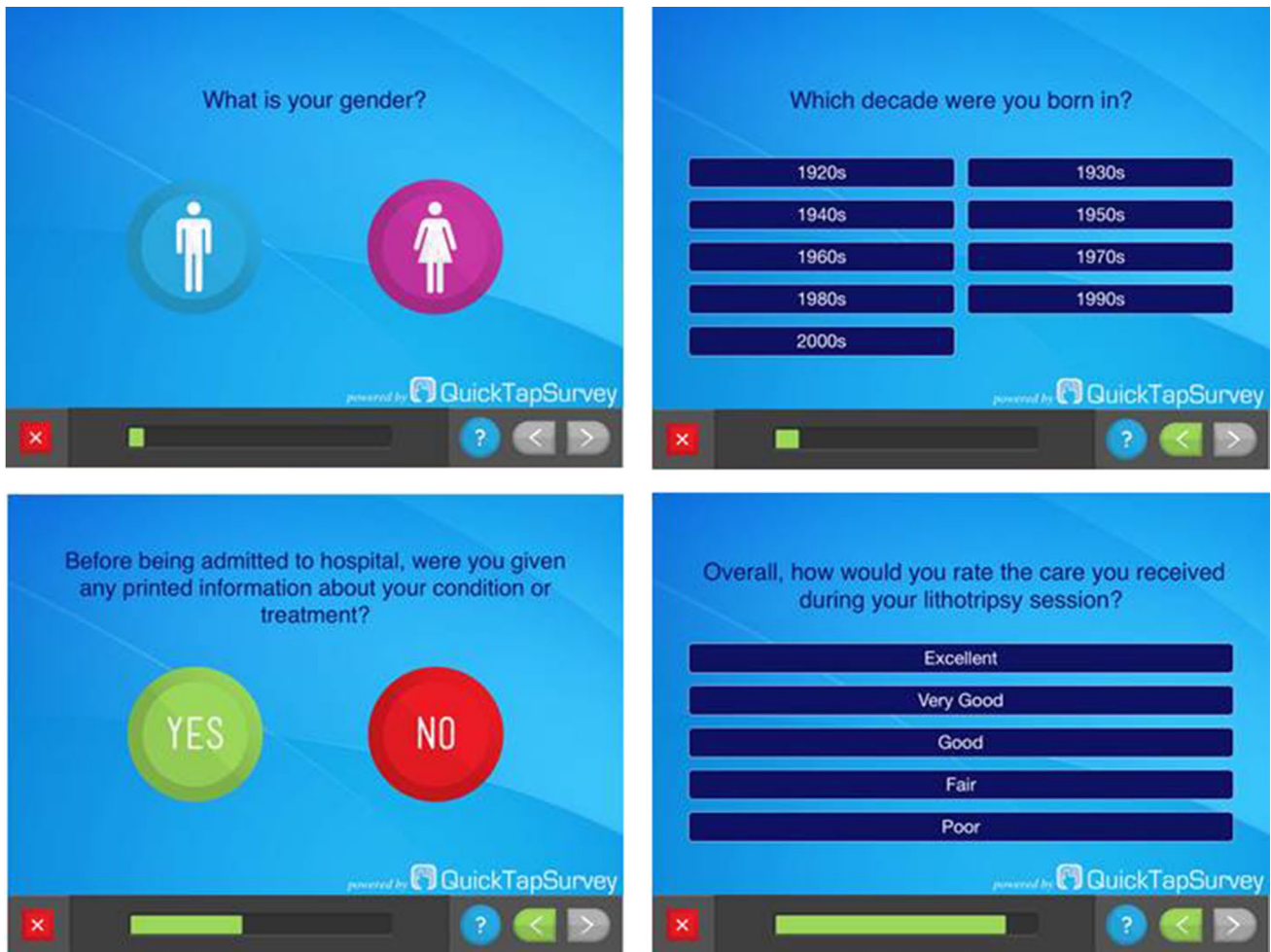


Fig. 1 Screenshots of four sample questions in the iPad™ survey

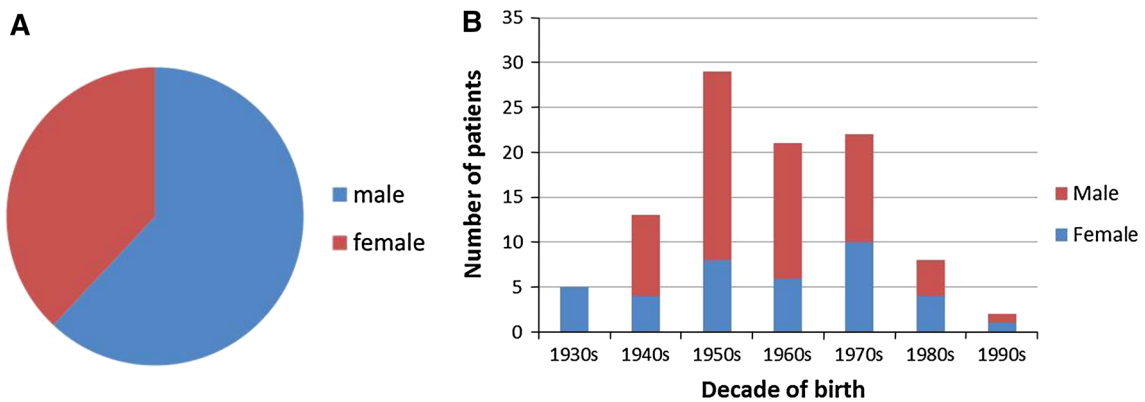


Fig. 2 Demographic data presented as pie-charts automatically by the survey software (Q1 and 2). Gender distribution (a) and age distribution of patients (b)

booking process, staff courtesy and teamwork, consent and explanation, and an overall assessment of the service (Figs. 2, 3, 4, 5). There were no significant differences in ratings between men and women.

Discussion

This pilot electronic patient feedback study using an iPad™ exemplified the ease in which patient feedback can be

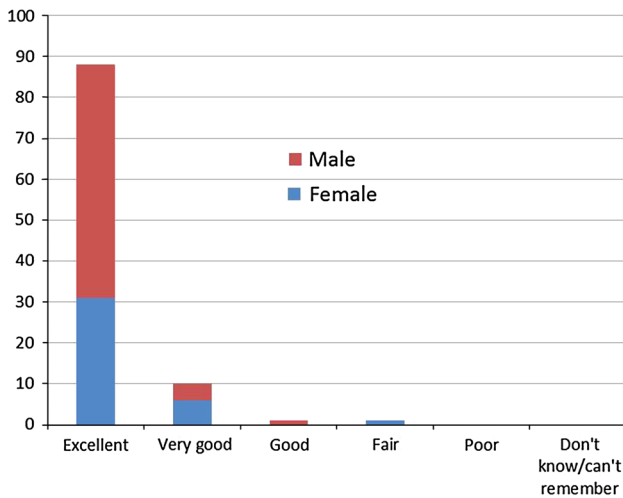


Fig. 3 Staff courtesy ratings (Q10)

obtained for a service or individual. Standard GMC questions can be customised to address a particular department's or individual's requirements. The ease in which data can be collected not only facilitates the GMC revalidation process but also provides evidence to support the improvement of patients' services.

One concern with any new technology is that it is not equally accessible by all sectors of society and thus biases collection and interpretation of data. Recent evidence, however, suggests that tablet devices can be used successfully in different population groups [4–8] and this is supported by our study which involved patients covering a wide age range.

This pilot study demonstrated that this is a readily adopted method of patient feedback. The Patients can be reassured that their feedback is completely anonymised, so allowing them to give an objective assessment of a service or doctor.

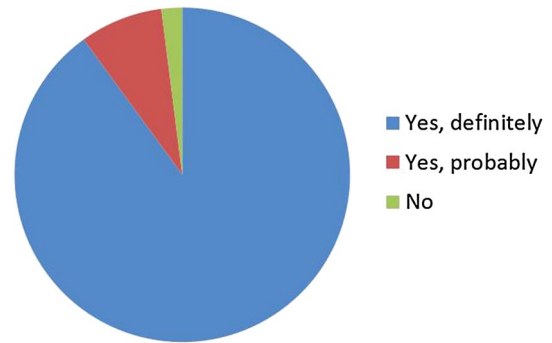


Fig. 5 Response to the "Friends and Family" test (Q17)

The same approach could be employed in many other clinical environments (outpatients, day surgery units and wards) to assess different aspects of medical practice and different members of a medical team. Following the Francis report [9], it is clear that the healthcare profession needs to be more aware of patient experiences and is accountable if standards fall. The ease of data collection using electronic methods such as those described facilitate audit and objective reporting to identify areas of strength and weakness within a department. Patient feedback provides evidence to support direction of resources to implement training and service change where required. Furthermore, methods employed by services with high satisfaction scores can be disseminated as examples of best practice.

Conclusions

This study has demonstrated that a touchscreen tablet device is an efficient and effective method of collecting patient feedback. This patient feedback tool could be

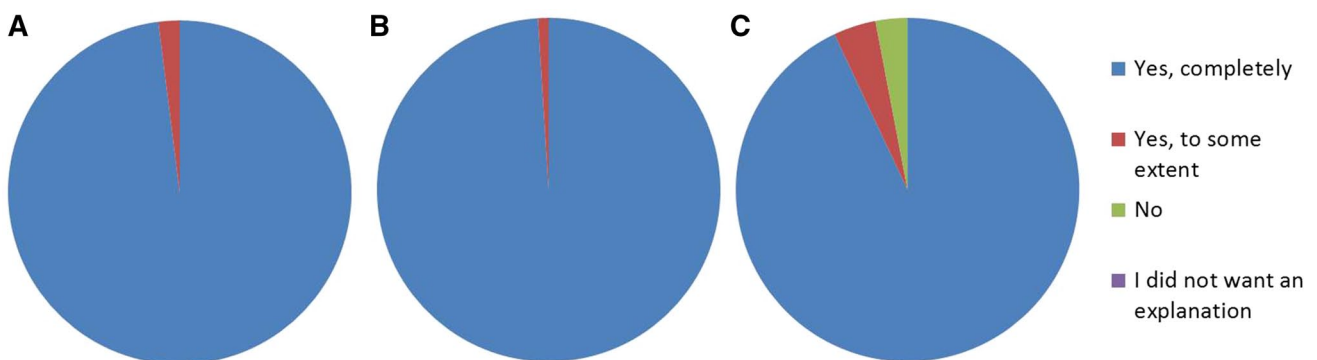


Fig. 4 Proportion of patients that felt they had been consented properly. Patients were asked if the risks and benefits were explained adequately (a) (Q11), whether patients had an understanding of what the

procedure involved (b) (Q12) and whether they understood how they could expect to feel after the procedure (c) (Q13)

employed in other clinical environments to collect data for revalidation purposes.

Conflict of interest The authors declare that they have no conflict of interest.

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