CLINICAL AUDIT

An audit to evaluate the effectiveness of giving postoperative advice over the telephone

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Abstract
The length of time that patients are staying in hospital after gynaecological surgery is decreasing, and physiotherapy services are having to respond to this change. In Salford, UK, women undergoing a major gynaecological procedure were sent written information pre-operatively, and when they had returned home, this was followed up with a telephone call in the first week after surgery. A telephone advice questionnaire was designed in order to standardize this input and audit the service. Findings were compared between the years 2011–2012 and 2014–2015. The 2011–2012 results revealed that 50% of participants reported postoperative constipation, which resulted in the addition of a laxative to their home medication. The 2014–2015 results showed a reduction in the proportion of participants affected, with only 29% describing postoperative constipation. The audit also revealed rates of postoperative bladder dysfunction and new cases of 23% and 4.8%, respectively. At 4 h per week, giving advice over the telephone was deemed to be an effective use of physiotherapy time. All the women who were contacted were happy to receive telephone advice because this gave them an opportunity to ask questions, and problems could be dealt with promptly. Approximately half of the participants took up an offer of postoperative pelvic floor assessment.

Keywords: audit, gynaecology, physiotherapy, postoperative advice, surgery.

Introduction

In 2011, physiotherapy advice following major gynaecology surgery was traditionally given on the wards at Salford Royal NHS Foundation Trust (SRFT), Salford, UK. However, since the average length of postoperative stay has now decreased to 24–48 h, it has become increasingly difficult to be able to see patients before they are discharged home. Furthermore, as a result of changes in the configuration of the physiotherapy team, input on the wards had become more limited. Prior to the changes, a physiotherapist would be available to go on to the wards for half a day, 5 days a week.

Therefore, it was decided that a different approach was required, and the present author's team decided to stop seeing patients on the ward and begin telephoning them at home in the week following their discharge instead. A literature review was conducted to see what evidence there was to support this approach, and whether it had been undertaken with this population previously (Bostrom *et al.* 1996; Lyons *et al.* 2011; McKinstry *et al.* 2011; Burch 2012; Patel 2013; Stella *et al.* 2014). No research that specifically explored giving physiotherapy advice over the telephone was identified. However, Caljouw & Hogendorf-Burgers (2010) studied patients who had undergone gynaecological surgery, investigating the types of health problems that they experienced at 6 weeks after discharge, and the effectiveness of giving advice over the telephone in comparison to no advice. The advice provided covered problems with urination, constipation, wound healing, vaginal bleeding and pain. Caljouw & Hogendorf-Burgers' (2010) results demonstrated that telephone advice helped patients to resolve or reduce post-discharge complications more than no advice. Other studies investigating the benefits of giving advice over the telephone have reported that this is an effective way to contact patients and provide information. Interestingly, a study by McKinstry *et al.* (2011)

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found that patients who were given advice over the telephone remembered the information and were able to recall the important facts on questioning at a later date.

A telephone advice questionnaire was developed to ensure that all the women involved in the present study received the same information and could be audited. It was decided that the present author's team would contact the same group of patients whom they would see on the ward, i.e. those undergoing:

- hysterectomy (vaginal, abdominal and laparoscopically assisted);
- anterior colporrhaphy;
- posterior colporrhaphy;
- sacrocolpopexy;
- pelvic floor repair; and
- urethral tape procedures.

The questionnaire (see "Appendix 1") was audited on a quarterly basis in the first year. This was in order to evaluate whether there were any issues with the questions included, the acceptability of the questionnaire and whether there were any recurring problems that should be addressed. Only minor changes were required: one of which was to acquire more accurate information about *de novo* postoperative bladder problems (i.e. new symptoms); and another was to include a question asking whether the wound was showing any signs of infection. If either or both were the case, then these issues could be dealt with promptly.

Bump *et al.* (1991) found that teaching pelvic floor muscle exercises verbally is ineffective, and that an examination of the contraction is the most effective way of ensuring that this is taught and performed correctly. A significant number of women have bladder symptoms or are at risk of a returning prolapse following surgery, and therefore, it was decided to offer all women a postoperative assessment by a specialist pelvic physiotherapist.

The aim of the present audit was to ensure that all women undergoing gynaecological surgery (see the bullet-point list above) at SRFT continue to be given the correct postoperative advice, and are offered the opportunity to have assessment of their pelvic floor so as to ensure that they are exercising this correctly.

Participants and methods

At SRFT, 1 h is set aside four times a week so that physiotherapists can contact patients who have undergone gynaecological surgery by telephone. This service is provided by band 7 and 8 physiotherapists because there are no other grades on the team.

All women are sent the *Fit Following Surgery* leaflet (POGP 2013) before admission, along with a covering letter informing them that a physiotherapist will contact them by telephone after their operation. The information included in the questionnaire corresponds with that in the POGP leaflet.

The operation lists for each consultant are reviewed every week so as to ensure that all appropriate women are contacted. The patients' electronic notes are examined in order to see which operation they have undergone, and whether there have been any postoperative complications. Their telephone numbers are obtained from the electronic patient record.

Patients whom the physiotherapy team are unable to contact by telephone are sent an opt-in letter in the post that offers them the opportunity to attend for a pelvic floor assessment. The team's e-mail address and telephone number are included in the letter in case any women want to get in touch for guidance.

The patients are given postoperative advice, and an opportunity to raise any concerns or ask any questions regarding the operation and their recovery. The women are also offered the opportunity to have their pelvic floors assessed at 6 weeks after their surgery, an opportunity that has always been presented to this group of patients. Those patients who decline a pelvic floor follow-up are given information on how to gain access to the service if they feel that they require it at a later date.

The information given and taken during the telephone call includes:

- advice about circulatory exercises, including the signs and symptoms of deep-vein thrombosis;
- advice about return to activity;
- advice about posture;
- advice about normal bladder function;
- advice about fluid intake and type;
- health promotion advice (e.g. promotion of smoking cessation and a healthy weight);
- advice about the pelvic floor and exercises;
- advice about the prevention and management of constipation;
- questions about the patient's bladder function before and after their operation;
- questions about bowel function before and after their operation; and
- questions about wound healing.

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Table 1. Questionnaire results for the 2011–2012 participants ($n = 95$): (POGP) Pelvic, Obstetric and Gynaecological Physiotherapy

Participants	Percentage
Received the POGP information leaflet	64%
Read the POGP information leaflet and found it useful	100%
Who could be contacted agreed to advice by telephone	100%
Had pre-operative bladder dysfunction	54%
Had postoperative bladder dysfunction	39%
Had postoperative constipation	50%
Were happy to receive advice over the telephone	100%
Requested postoperative pelvic floor assessment	56%

Table 2. Questionnaire results for the 2014–2015 participants ($n = 134$): (POGP) Pelvic, Obstetric and Gynaecological Physiotherapy

Participants	Percentage
Received the POGP information leaflet	91%
Read the POGP information leaflet and found it useful	100%
Who could be contacted agreed to advice by telephone	100%
Could not be contacted by telephone	6%
Had bladder dysfunction both pre- and postoperatively	23%
Had *de novo* bladder dysfunction postoperatively	4.8%
Had postoperative constipation	29%
Were happy to receive advice over the telephone	100%
Requested postoperative pelvic floor assessment	43%
Had not been prescribed Movicol or Laxido	11%

The women are also asked about how acceptable they find being contacted by telephone and receiving postoperative advice in this manner.

Results

The questionnaire was given to 95 women in 2011–2012, the first year of the study, and the results are shown in Table 1. It was then given to 134 women in 2014–2015, the second year that the study was conducted, and the results are shown in Table 2. The types of postoperative bladder dysfunction that were reported in 2014–2015 are shown in Fig. 1.

Discussion

In 2011–2012, 64% of women reported that they had received the *Fit Following Surgery* leaflet pre-operatively (Table 1). However, this result is likely to be misleading since one of the physiotherapists noted that, when the patients were questioned further, they revealed that they had received the leaflet along with all the other pre-operative information, but had not actually read it.

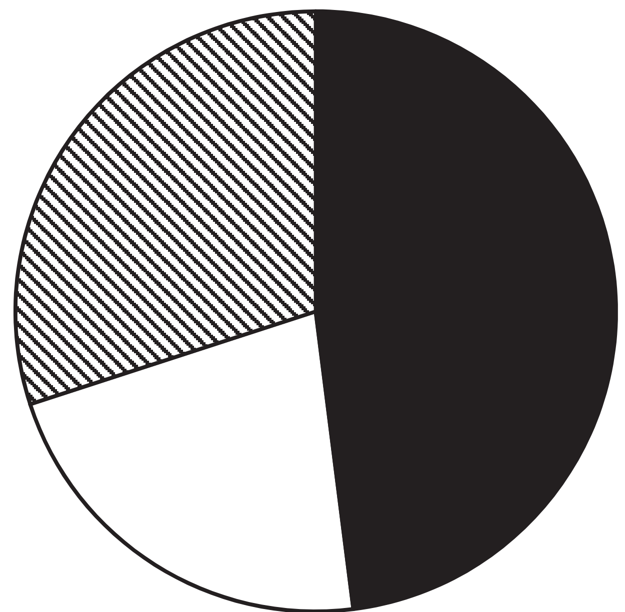

Figure 1. Types of postoperative bladder dysfunction reported by the participants in 2014–2015: (■) urgency or urinary incontinence (48%); (□) stress incontinence (22%); and (▧) urine retention (30%).

Following the first audit, it was recognized that a high percentage of the participants (50%) had experienced postoperative constipation, which had resulted in the readmission of two patients. As a result of this, all women are now prescribed Laxido or Movicol after surgery, which are added to their take-home medication (Belsey *et al.* 2010). The 2014–2015 results demonstrated a significant reduction in postoperative constipation (Table 2). However, there was a cluster of patients who had not been prescribed one of these laxatives for a few weeks during this period; this was resolved after contact was made with the consultants.

Of those who had experienced postoperative bladder dysfunction (Fig. 1), 48% and 30% reported urgency or urge incontinence, and urine retention, respectively. The consultants were also keen to know who had suffered from *de novo* bladder dysfunction after surgery. Therefore, the rate was extrapolated from the results for the following year, which showed that 4.8% had experienced *de novo* postoperative dysfunction, and of these, 1.6% had suffered from urine retention.

All who read *Fit Following Surgery* reported that they found it useful, a finding that provides evidence that the leaflet was appropriate. Because of the nature of the surgery, which includes the treatment of urinary incontinence, the number of women with pre-operative bladder problems was

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to be expected. The results also demonstrate that the number of participants with these issues reduced after surgery.

Postoperative constipation is commonly a result of abdominal pain and the type of analgesia used during this period. The introduction of Movicol has reduced the incidence of constipation and enables patients to manage it effectively, and as a direct result of this, there were no readmissions for constipation in 2014–2015.

Postoperative urine retention and urinary tract infection were picked up by the team, and dealt with promptly, which helped to prevent readmission and complaints.

The audit tool is easy to use, and the women contacted found it acceptable to receive information over the telephone.

Frequently occurring themes that emerged during the conversations with the participants included the following:

- They were pleased to have contact with someone because they are discharged so quickly, and often cannot remember what they can and cannot do once they return home.
- They were pleased to be able to ask questions once they had returned home because issues often arise after discharge.
- They all found the information to be very helpful.

The purpose of the intervention was not only to provide information pertinent to the prevention of postoperative bladder problems and other complications, and advice about returning to normal activity safely, but also to ensure that women with bladder, bowel or pelvic floor dysfunction were given the opportunity to be assessed by a specialist physiotherapist from the SRFT pelvic health physiotherapy team. This is a comprehensive physiotherapy service for women who have undergone surgery.

A study by Wennberg *et al.* (2009) found that between 25% and 47% of women do not seek help for the management of urinary dysfunction. The present author's pelvic health physiotherapy team provides patients with information on how to access the service if problems arise, and offers an explanation of why this is a common but abnormal condition.

The telephone advice service has proved to be an effective approach: it takes less time than going to a ward, and no time is wasted looking for patients or having to wait while someone else is with them. Once on the phone, you have their undivided attention and a good rapport can be developed. There was no increase in the team's workload following the change because all patients were already offered a pelvic floor review 6 weeks after surgery.

The telephone interpretation service is employed for patients who do not speak English; this is easy to use and seems to work well. If patients have other communication needs, a letter containing the pelvic health physiotherapy team's e-mail address is sent out that offers them the opportunity to ask questions or to make a follow-up appointment.

Conclusions

The telephone is an effective method of delivering postoperative advice and giving information to patients. It is also helps to identify those women who have or who are at risk of developing bladder, bowel or pelvic floor dysfunction, and ensures that are followed up by specialist pelvic health physiotherapists. Telephone contact is less time-consuming than going to the wards, and therefore, it is also more cost-effective.

This telephone advice questionnaire has been a successful assessment tool, and from the results of the present audit, the SRFT pelvic health physiotherapy service will continue to provide advice and information in this way.

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Appendix 1

Telephone audit questionnaire and treatment plan for patients undergoing bladder and gynaecological surgery: (NA) not applicable

Patient name: National Health Service number:
Operation type: Unable to contact:

Did you have your operation on the date listed?	Yes/No
Did you receive the covering letter and leaflet before your operation?	Yes/No
Have you read through the leaflet?	Yes/No/NA
Did you find the information useful?	Yes/No/NA
Postoperative information	
Do you mind if I discuss the information in the leaflet with you over the telephone?	Yes/No
Patient advised about circulatory exercises	Yes/No
Patient given advice on the signs and symptoms of deep-vein thrombosis, and who to report to should these arise	Yes/No
Patient given advice on return to normal activities of daily living, lifting, return to work, and sport and exercises	Yes/No
Patient advised on back care, posture, lifting and abdominal exercises	Yes/No
Patient advised of the risk of developing bladder problems	Yes/No
Basic anatomy of the pelvic floor explained	Yes/No
Patient advised to undertake pelvic floor exercises three times a day	Yes/No
Patient advised to drink 1500–2000 mL per day	Yes/No
Patient advised about the effects of caffeine and fizzy drinks	Yes/No
Patient informed of normal voiding pattern	Yes/No
Patient advised to avoid constipation	Yes/No
Patient advised about the effects of smoking on bladder function	Yes/No/NA
Symptoms	
Have you had urgency or urinary incontinence since the operation?	Yes/No
Postoperative urine retention?	Yes/No
Did you have any bladder problems before your operation?	Yes/No
Have you had any treatment for your bladder?	Yes/No

Comments ....
....
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Bowels	
Can you control your bowels since the operation?	Yes/No
Have you had constipation since the operation?	Yes/No

Comments ....
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....

Wound healing	
Is the wound healing OK?	Yes/No
Is the wound stinging and/or weeping?	Yes/No

Comments ....
....
....

If yes, ask the patient to contact the general practitioner	
Did you find it acceptable for me to telephone you?	Yes/No
Would you like a follow-up assessment?	Yes/No

Comments ....
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