

SERVICE EVALUATION

Service redesign in women's health physiotherapy

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Abstract

Physiotherapists are being challenged to find innovative ways to engage with patients and deliver services. They need to work within tight budgets and provide a seamless, high-quality service, often with limited resources. Furthermore, they have to engage service users and work with other members of the healthcare team. Physiotherapists must also embrace new technologies in order to find novel ways of delivering information and services. It was with this in mind, as well as a rising waiting list, that the present authors embarked on a service development programme. In this paper, they share their experiences so as to help the many physiotherapists who are involved in the same exercise.

Keywords: collaboration, service development programme, technology.

Introduction

There is a robust evidence base to support physiotherapy interventions for patients with pelvic floor dysfunction (PFD) (SIGN 2004; NICE 2006). Because of the rising demand for specialist physiotherapy input for patients with urogynaecological problems, and the ever-increasing referral rate for pregnancy-related pelvic girdle pain (PGP) within the National Health Service (NHS) Forth Valley unit, the Women's Health Physiotherapy Team (WHPT) was required to look at ways of delivering a service.

The WHPT is comprised of five physiotherapists: one Band 8 [0.8 whole-time equivalent (WTE)], one Band 7 (0.7 WTE), two Band 6 (1.6 WTE) and one Band 5 (0.2 WTE). The total complement amounts to a WTE of 3.3. The NHS Forth Valley unit serves a population of 300 000, and covers a geographical area from the village of Killin in the north to the town of Bo'ness in the south, a distance of approximately 88.5 km (NHSFV 2014a). The birth rate within the Forth Valley is 3400 per annum, and specialist cover is provided by two hospitals (one acute and one community-based) and one large health centre. Inpatient maternity and gynaecology ward services are offered, along with PFD

clinics, including: extended-scope physiotherapist (ESP) clinics; antenatal and postnatal musculoskeletal (MSK) care; and antenatal classes.

Initially, the present authors examined activity figures in order to identify areas of concern. In 2012, 2584 treatment sessions were delivered for patients with MSK disorders and PFD. By 2013, this had increased to 2990 treatment sessions, with 1425 of these being specifically for patients with PFD. The referral rate for PFD in 2013 was 622, and 700 pregnancy-related PGP appointments were made. Eighty-five women with third-degree tears were referred; they were seen on the ward where possible and offered outpatient follow-up within 6 weeks of delivery. There were 219 patients with PFD on the waiting list in January 2012, and 46 of these individuals waited for longer than 9 weeks for an appointment, while 20 waited for more than 18 weeks. The average waiting time was 65 days. The women with MSK disorders waited to be seen for an average of between 7 and 10 days, and their appointments tended to be categorized as "soon" or "urgent".

In order to manage referrals and waiting lists, it was decided to focus on two key service areas: (1) the physiotherapy role in antenatal education; and (2) input for women with MSK disorders. It was decided that these areas could be reviewed with the aim of providing an efficient service for patients by making the best use of

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resources. It was believed that there was a need to collaborate with and provide education for midwives with a view to clarifying the service available to the women whom they see.

It was also important to utilize the skills of the NHS Forth Valley Communications Department so as to provide information for patients in an electronic format.

Participants and methods

Antenatal education

Historically, physiotherapists have been aware of the fact that the uptake of antenatal education is often poor, and the Scottish Government has identified that 55% of pregnant women do not attend antenatal sessions (Mabelis & Marryat 2011). In many areas, midwives have started running sessions aimed at teenagers.

The NHS Forth Valley service has changed several times over many years. Initially, the model included six weekly physiotherapy breathing and relaxation sessions that were linked with midwifery classes. Because of limited resources, this was altered in order to offer: (1) an early pregnancy class (from 12 to 24 weeks) focusing on posture, exercise and general self-care; and (2) a late class (from 30 weeks onwards) dealing with positions for labour, the use of transcutaneous electrical nerve stimulation, breathing and relaxation, and pelvic floor muscle exercises (PFMEs).

Despite an average birth rate of 3400 per annum, an audit in 2013 indicated that only 210 women attended antenatal sessions. This figure represents 6.4% of the total number of births, and although 94% of those who attended felt that the class was helpful, it was questionable if this model was, in fact, the best use of the limited time available.

Many women now access pregnancy and birth-related advice via the Internet and the media, and although the validity of some of this material is questionable, it has to be accepted that the availability of this information via these channels may be responsible for the low uptake of classes (Mabelis & Marryat 2011).

An online booking service was trialled that gave women access to the dates and times of classes, and allowed them to book into a session via an e-mail referral to the WHPT. An audit revealed that over 90% of all participants had booked this way, and that they found the process simple and quick. The remaining 10% had booked by telephone.

Several meetings were held with the midwives. These highlighted any issues or concerns, and it was agreed to work collaboratively in order to produce an online video demonstrating basic positions for labour, breathing skills and relaxation techniques. The video was scripted in collaboration with a senior midwife, pregnant models were recruited and the Communications Department was utilized to help produce the video. There was no additional funding, but the whole process only took a few planning meetings and one full day of filming in the labour suite.

For ease of access, the video was also uploaded to the website of the Forth Valley Royal Hospital (FVRH), Larbert, under the women's and children's services section (NHSFV 2014b). It was sent out to all midwifery staff and managers for comment before being made available to the public. The video is advertised in the information flyer placed in the Scottish Women-Held Maternity Record, and women have an opportunity to discuss it with midwifery staff at routine clinic appointments.

Pelvic girdle pain

Pregnancy-related PGP is a common problem: 14–22% and 5–8% of women have, respectively, serious and severe problems with pain and disability (Daly *et al.* 1991; McIntyre & Broadhurst 1996). Seven hundred women with PGP were referred to the NHS Forth Valley unit in 2013. Because much of the information given to women by healthcare professionals is taken from the POGP-approved booklet *Pregnancy-Related Pelvic Girdle Pain* (ACPWH 2011), it was considered possible that this generic self-help information could be delivered within a small group setting.

In March 2012, a pilot project was launched to investigate the viability of delivering this information to groups of eight women. The participants were self-referrers, and they attended a 60-min session at the FVRH physiotherapy gym. The information was delivered by one of the WHPT Band 6 physiotherapists using audio-visual aids, diagrams and models. The content covered the incidence of PGP, its causes and symptoms, self-help strategies, referral on to physiotherapy services, and postural exercises. The women were invited to stay behind at the end of the session if they wanted to have a short chat with the physiotherapist regarding any particular concerns/issues. At this point, a short assessment was offered in order to determine whether a one-to-one session was necessary.

Funding

The cost of the audiovisual equipment, which included a model pelvis, an A3 folder, a mat and pillows, and the printing of leaflets was around £300. Additional costs included physiotherapy time allocated to planning the service changes.

Results and discussion

An audit carried out over the 9 months between March and November 2012 showed that the equivalent of 104 new patient physiotherapy appointments, which would have lasted 45 min each, were saved by delivering the information to a group as opposed to giving everyone an individual appointment.

A consumer satisfaction survey indicated that over 80% of the respondents felt that: the referral to group appointment time was acceptable; there was enough time to ask questions in the group; individual concerns were addressed; and the content was relevant. Negative issues raised mainly related to the size of the room, the duration of the group and parking.

As a result of the survey, the time when the group met was altered to avoid periods when parking was busy, and it was moved to a different room that was of a more suitable size and closer to the midwifery clinics should any woman become unwell. The length of the group session was reduced to 45 min, and it was limited to a maximum of six participants. A short, individual triage session was implemented with each woman prior to the start of every group in order to determine her suitability and to rule out any red flags. All women completed the Pelvic Girdle Questionnaire (Stuge & Bergland 2011).

At the end of the group, the women were encouraged to discuss any further issues, including the need for a full one-to-one physiotherapy assessment at a later date. The audit highlighted that 28% of group attendees required an additional one-to-one appointment. This took place in a 30-min appointment, which saved considerable physiotherapy time.

Currently, women phone the physiotherapy department to book into a PGP session. Exclusion criteria include: the need for an interpreter; a recent trauma such as a fall or road traffic accident; a gestational point after 38 weeks; and an anxiety condition preventing attendance at group sessions. The assessment form ("Appendix 1", pp. 56–57) is initiated by the administration staff and completed by the physiotherapist delivering the PGP session.

Antenatal continence

In July 2013, a joint statement (Gerrard & ten Hove 2013) was issued by the Chartered Society of Physiotherapists (CSP) and the Royal College of Midwives (RCM), which suggested that:

- In the antenatal period, all women should be given evidence-based information and advice about PFMEs, and an opportunity to discuss pelvic care with a qualified healthcare professional.
- Maternity service providers should develop clear standards and a referral pathway to specialist physiotherapy for women who are at risk of bladder, bowel and/or pelvic floor problems, or have a previous history of these issues.
- Midwives should be trained to provide accurate advice and support.
- Maternity service providers should work with obstetric physiotherapists to identify local opportunities to deliver training to midwives.
- Midwives should access RCM learning resources and remain up to date with information.

Urinary incontinence (UI) is prevalent in between 42% (Mørkved *et al.* 2004) and 62% of pregnant women (Chiarelli & Campbell 1997), and 75% of vaginal births are thought to require suturing (Dietz *et al.* 2007). Furthermore, significant perineal trauma, i.e. third- and fourth-degree tears, occurs in 3–9% of all vaginal deliveries (RCOG 2007).

National Institute for Health and Clinical Excellence Clinical Guideline 62, *Antenatal Care* (NICE 2008), states that all pregnant women should be given advice on PFMEs, and Scottish Intercollegiate Guidelines Network Guideline 79, *Management of Urinary Continence in Primary Care* (SIGN 2004), maintains that PFMEs are effective in genuine stress incontinence and mixed UI. This is also supported by Imamura *et al.* (2010) and Hay-Smith & Dumoulin (2006). The more-recent Pelvic Organ Prolapse Physiotherapy (POPPY) trial (Hagen *et al.* 2011) demonstrated that pelvic floor education can be successful in the treatment of cases of grade 1 and 2 uterovaginal prolapse.

On the basis of this evidence and in compliance with the suggestions made in the RCM/CSP Joint Statement (Gerrard & ten Hove 2013), it was felt that it would be constructive to: be proactive in identifying pregnant women with UI; be able to provide them with pelvic floor education in the form of appropriate literature

and advice; and have a pathway of care in place for symptomatic women. There is evidence to suggest that women with incontinence often suffer from depression and loss of confidence, and there are significant financial costs involved in purchasing containment products (Gerrard & ten Hove 2013). A recent study estimated that the combined healthcare, personal and societal expenses are approximately £248 per person, and the cost to the NHS was approximately £112 million in 2009–2010 (DH 2011). Therefore, it would seem sensible to identify and engage with these women at an early stage.

The section of the FVRH website dedicated to women's health physiotherapy offers individuals information on continence care and PFMEs, and provides links to appropriate leaflets (NHSFV 2014c). Women are encouraged to complete the International Consultation on Incontinence Questionnaire – Urinary Incontinence (Short Form), which is a validated scoring system (ICIQ 2014). It is suggested that anyone scoring 11 or above out of a possible 21 should consider using the physiotherapy self-referral form. This document was published in CSP Information Paper PD105, *Project to Evaluate Patient Self-referral to Women's Health Physiotherapy Pilot Sites* (CSP 2013).

Midwifery training

In order to highlight changes to the NHS Forth Valley service, in-service training is delivered to the midwifery staff as part of their yearly full-day training package. This is given to groups of 12 midwives on a monthly basis. Information is delivered relating to the RCM/CSP Joint Statement (Gerrard & ten Hove 2013), and the national guidelines relating to the conservative management of continence (SIGN 2004) are discussed. The midwives are reminded of the anatomy of the pelvic floor, the types of urogynaecological dysfunctions, the role of the specialist physiotherapist, and how and when to refer patients. Since delivering this training, a number of midwives suffering from UI have self-referred to the service.

The role of the midwife in supporting women with PGP is also considered, as are the relevant guidelines, the symptoms of PGP, self-help advice and the care pathway. The midwives are encouraged to access online information. These sessions also provide an opportunity to remind the midwives about the breathing and relaxation video that is available online (NHSFV 2014b), as well as the protocol within the unit for dealing

with third- and fourth-degree tears, and the relevant care pathway.

Conclusions

By working closely with the midwives and delivering regular, evidence-based in-service training, it has been possible to provide a service that is effective and makes good use of the available resources.

On reviewing the impact of these changes in March 2014, the PFD waiting list was found to have 59 patients on it, and only three had waited for over 9 weeks to be seen.

Online information services are now beginning to be used, and work to deliver care based on the national clinical guidelines (SIGN 2004) is underway.

Acknowledgement

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References

- Association of Chartered Physiotherapists in Women's Health (ACPWH) (2011) *Pregnancy-Related Pelvic Girdle Pain (Guidance for Health Professionals)*. Association of Chartered Physiotherapists in Women's Health, London.
- Chartered Society of Physiotherapy (2013) *Project to Evaluate Patient Self-referral to Women's Health Physiotherapy Pilot Sites*. Information Paper PD105. Chartered Society of Physiotherapy, London.
- Chiarelli P. & Campbell E. (1997) Incontinence during pregnancy: prevalence and opportunities for continence promotion. *The Australian and New Zealand Journal of Obstetrics and Gynaecology* **37** (1), 66–73.
- Daly J. M., Frame P. S. & Rapoza P. A. (1991) Sacroiliac subluxation: a common, treatable cause of low-back pain in pregnancy. *Family Practice Research Journal* **11** (2), 149–159.
- Department of Health (DH) (2011) *Children's and Adults' Continence Services*. [WWW document.] URL <http://webarchive.nationalarchives.gov.uk/20130805112926/http://media.dh.gov.uk/network/18/files/2011/07/continence-services.pdf>
- Dietz H. P., Gillespie A. V. L. & Phadke P. (2007) Avulsion of the pubovisceral muscle associated with large vaginal tear after normal vaginal delivery at term. *The Australian and New Zealand Journal of Obstetrics and Gynaecology* **47** (4), 341–344.
- Gerrard J. & ten Hove R. (2013) *RCM/CSP Joint Statement on Pelvic Floor Muscle Exercise: Improving Health Outcomes for Women following Pregnancy and Birth*. Chartered Society of Physiotherapy and Royal College of Midwives, London.

- Hagen S., Stark D., Glazener C., *et al.* (2011) A multicentre randomised controlled trial of a pelvic floor muscle training intervention for women with pelvic organ prolapse. [Abstract.] *Neurology and Urodynamics* **30** (6), 983–984.
- Hay-Smith J. & Dumoulin C. (2006) Pelvic floor muscle training versus no treatment, or inactive control treatments, for urinary incontinence in women. *Cochrane Database of Systematic Reviews*, Issue 1. Art. No.: CD005654. DOI:10.1002/14651858.CD005654.
- Imamura M., Abrams P., Bain C., *et al.* (2010) Systematic review and economic modelling of the effectiveness and cost-effectiveness of non-surgical treatments for women with stress urinary incontinence. *Health Technology Assessment* **14** (40), 1–188, iii–iv.
- International Consultation on Incontinence Modular Questionnaire (ICIQ) (2014) *Validation Protocol*. [WWW document.] URL <http://www.iciq.net/validationprotocol.htm>
- Mabelis J. & Marryat L. (2011) *Growing Up in Scotland: Parental Service Use and Informal Networks in the Early Years*. Scottish Government, Edinburgh.
- McIntyre I. N. & Broadhurst N. A. (1996) Effective treatment of low back pain in pregnancy. *Australian Family Physician* **25** (9, Suppl. 2), S65–S67.
- Mørkved S., Salvesen K. A., Bø K. & Eik-Nes K. (2004) Pelvic floor muscle strength and thickness in continent and incontinent nulliparous pregnant women. *International Urogynecology Journal and Pelvic Floor Dysfunction* **15** (6), 384–390.
- National Health Service Forth Valley (NHSFV) (2014a) *About NHS Forth Valley*. [WWW document.] URL <http://nhsforthvalley.com/about-us/>
- National Health Service Forth Valley (NHSFV) (2014b) *Breathing and Relaxation*. [WWW document.] URL <http://nhsforthvalley.com/health-services/az-of-services/women-and-children/womens-health-physiotherapy/breathing-and-relaxation-for-labour/>
- National Health Service Forth Valley (NHSFV) (2014c) *Women's Health Physiotherapy*. [WWW document.] URL <http://nhsforthvalley.com/health-services/az-of-services/women-and-children/womens-health-physiotherapy/>
- National Institute for Health and Clinical Excellence (NICE) (2006) *Urinary Incontinence: The Management of Urinary Incontinence in Women*. NICE Clinical Guideline 40. National Institute for Health and Clinical Excellence, London.
- National Institute for Health and Clinical Excellence (NICE) (2008) *Antenatal Care*. NICE Clinical Guideline 62. National Institute for Health and Clinical Excellence, London.
- Royal College of Obstetricians and Gynaecologists (RCOG) (2007) *The Management of Third- and Fourth-Degree Perineal Tears*. Green-top Guideline No. 29. Royal College of Obstetricians and Gynaecologists, London.
- Scottish Intercollegiate Guidelines Network (SIGN) (2004) *Management of Urinary Continence in Primary Care: A National Clinical Guideline*. SIGN Guideline 79. Scottish Intercollegiate Guidelines Network, Edinburgh.
- Stuge B. & Bergland A. (2011) Evidence and individualization: important elements in treatment for women with postpartum pelvic girdle pain. *Physiotherapy Theory and Practice* **27** (8), 557–565.

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Holly Horsley is a Band 6 physiotherapist. She qualified in 2006, and currently works in women's health/lurogynaecology at FVRH and Stirling Community Hospital. Holly has been involved in service development and the delivery of the PGP service across both sites, as well as working with the NHS Forth Valley Communications Department to develop the online service.

Appendix 1

The pelvic girdle pain assessment form appears on the following pages (pp. 56–57): (CHI) Community Health Index; (GP) general practitioner; (BP) blood pressure; (Hx) history; (m/c) miscarriage; (Lx) lumbar spine; (ca) cancer; (PMH) past medical history; (DH) drug history; (MSK) musculoskeletal; (PT) physiotherapist; (HPC) history of presenting condition; (PC) presenting condition; (Y/N) yes/no; (POGP) Pelvic, Obstetric and Gynaecological Physiotherapy; (ADLs) activities of daily living; (MET) muscle energy technique; and (r/v) review.

Unit number:

CHI:

**Pelvic Girdle Pain (PGP)
Physiotherapy Education Group
NHS Forth Valley**

Today's date: _____
Patient Name: _____
Address: _____
Date of Birth: _____
Telephone No: _____
Occupation: _____
Midwifery Team: _____
Consultant/GP: _____
Expected Date of Delivery: _____
Is this your first pregnancy? Yes no
Date of group: _____ Appointment: _____

(Please remind patients to bring antenatal notes)

Physio Triage: Consent Gained – Yes / No

Parity:	Bleeding: BP: Kicking:	Placenta: Hx of m/c: Infection:
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Red flags:

<input type="checkbox"/> bladder/bowel	<input type="checkbox"/> saddle anaesthesia	<input type="checkbox"/> cough/sneeze
<input type="checkbox"/> cord signs	<input type="checkbox"/> major loss of Lx flexion	<input type="checkbox"/> Hx of ca

PMH:
DH:
Obstetric Hx and previous pregnancy-related MSK problems:

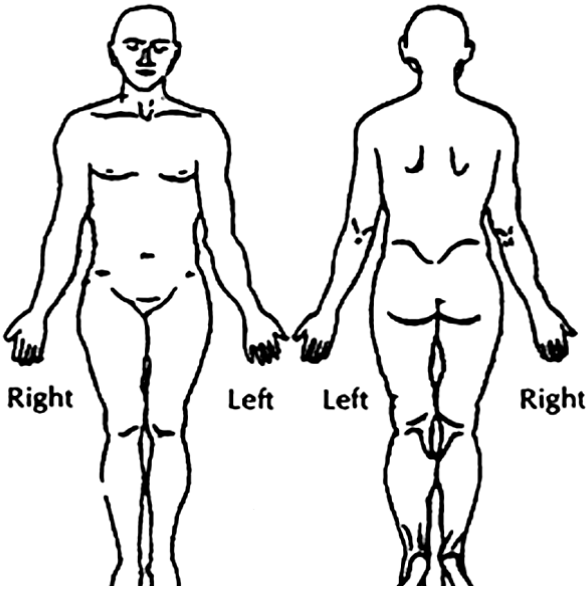
PT Name:

Date:

Signature:

Unit number:

CHI:

	<p>HPC:</p> <p>PC: Constant / Intermittent</p> <p>Sleep disturbed: Y / N</p> <p>Aggravates:</p> <p>_____</p> <p>_____</p> <p>Eases:</p> <p>_____</p> <p>_____</p> <p>PGP Group – Yes / No</p> <p>Sign:</p>
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Content of group:

- POGP *Fit for Pregnancy* leaflet and website address provided
- explanation of PGP
- risk factors in PGP
- pain management strategies
- ADLs – avoiding and adapting activities/pacing and planning
- Exercises/maintaining normal movement
- birthing with PGP
- postnatal PGP

***PT happy with education only – sign: _____ Date:**

Main findings from objective assessment:

- bony landmarks/malalignment:
- kinetic tests:
- muscle palpation:

Treatment:

- no manual treatment required
- MET used to correct: _____
- tubigrip size K / L / M issued and advised on use
- Belt size 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 (narrow/ wide) issued and advised on use
- elbow crutches issued with gait re-education
- other: _____

Plan: On hold (PT aware how to book r/v) PT to book review at dept

PT Name:

Date:

Signature: