Poster digest

Introduction

Well done everyone who entered the 2020 POGP poster and infographic competition!

We were delighted to receive the seven submissions that are printed below. This has been especially commendable given that we are in the middle of the COVID-19 pandemic, and the entrants will all have had extra demands made on their time.

This year is the first in which the competition has included infographics, which are defined as "graphic visual representations of information, data, or knowledge intended to present information quickly and clearly" (Wikipedia 2020). There is now widespread use of this format in social media.

A team of three judges, which was made up of members of various POGP subcommittees, used a scoring system to appraise the posters and infographics anonymously. The entrants were all deemed to have worked hard to present their research and service developments in creative and engaging ways.

Congratulations go to Sally Reffold for her winning poster, "Does pelvic floor muscle training using neuromuscular electrical stimulation have an effect on the incidence of urinary tract infections in females with motor complete spinal cord injuries?" (see pp. 77–78). She has been awarded a prize of £50. This is a well-designed research study, and we very much look forward to hearing the results.

Congratulation also go to Claire Brodie for her winning infographic, "Diastasis – holistic assessment and management: a systematic approach to managing diastasis" (see pp. 78–79). She too has been awarded a prize of £50. Her work has wonderfully clear graphics that are set out in an informative way.

Since we were unable to hold a conference last year, the prize for best platform presentation was not awarded. In 2021, our competition for posters, infographics and platform presentations will return. In preparation, I recommend that you read Kay Crotty's article on how to design a poster (Crotty 2018), and start to develop your ideas. I look forward to even more entrants sharing their work at Conference this year, where it will be wonderful to see and hear them in a virtual environment.

Short summaries and thumbnail-sized images of the posters are printed below. The full-sized versions can be viewed on the new POGP website (https://thepogp.co.uk/).

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Does pelvic floor muscle training using neuromuscular electrical stimulation have an effect on the incidence of urinary tract infections in females with motor complete spinal cord injuries?

Pelvic floor muscle training (PFMT) is now established as a first-line treatment for non-neurogenic bladder dysfunction. Limited research

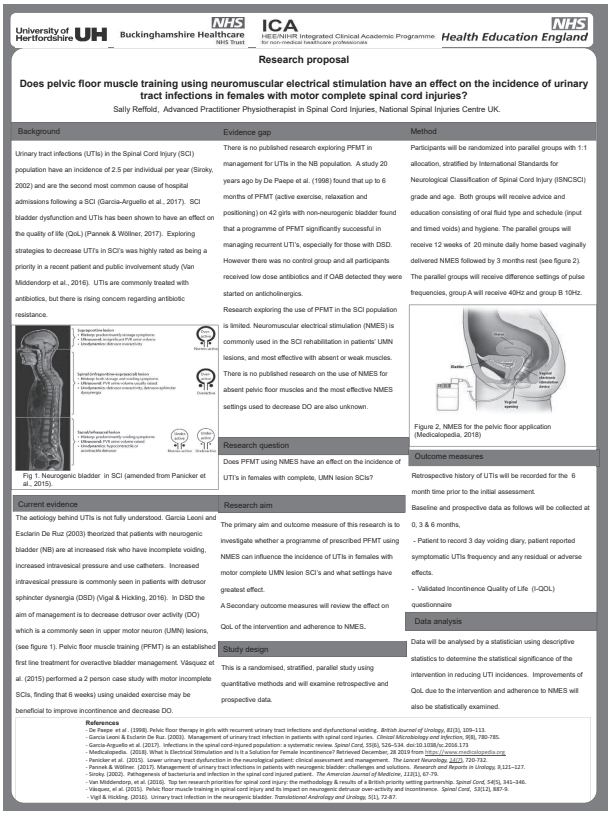

Figure 1. Research: "Does pelvic floor muscle training using neuromuscular electrical stimulation have an effect on the incidence of urinary tract infections in females with motor complete spinal cord injuries?"

involving the neurological population has been published, especially with respect to individuals suffering from spinal cord injuries (SCIs). Vásquez *et al.* (2015) reported that PFMT may be beneficial because it could improve continence and decrease detrusor overactivity in people with SCIs. The National Institute for Health and Clinical Excellence (now the National Institute for Health and Care Excellence) recommended that further research into the conservative management of urinary tract infections (UTIs) in people with neurogenic bladder dysfunction should be undertaken (NICE 2012), and this was a key priority in a patient and public involvement study of SCIs (Van Middendorp *et al.* 2016). The effect of PFMT using neuromuscular electrical stimulation (NMES) on UTIs in motor complete SCIs will be conducted. The secondary objectives will include reviews of compliance, treatment adherence and the impact on the participants' quality of life (QoL). Following an SCI, UTIs are the second most common cause of hospital admissions, and have an incidence of 2.5 per individual per year (Siroky 2002). Bladder dysfunction caused by an SCI has been shown to have a negative effect on QoL, and an even more marked impact on recurrent UTIs (Pannek & Wöllner 2017). Participants will be recruited and screened before being randomized into parallel groups, which will be stratified by grade and age using the International Standards for Neurological Classification of Spinal Cord Injury. The two groups will receive 12 weeks of vaginally based NMES using different pulse frequencies, followed by 3 months of rest. A retrospective history of UTIs and prospective data will be collected at 0, 3 and 6 months using the following:

- a 3-day voiding diary recording patient-reported symptomatic UTIs, frequency, and any residual or adverse effects;
- post-void residual bladder volume;
- a validated QoL outcome measure; and
- NMES adherence.

This study into the use of NMES-delivered PFMT for individuals with SCIs will provide an insight into its impact as a conservative management option for UTIs, and its use in the management of neurogenic pelvic floor dysfunction (PFD) in people with motor complete SCIs.

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Siroky M. B. (2002) Pathogenesis of bacteriuria and infection in the spinal cord injured patient. *The American Journal of Medicine* **113** (Suppl. 1A), 67S–79S.

Van Middendorp J. J., Allison H. C., Ahuja S., *et al.* (2016) Top ten research priorities for spinal cord injury: the methodology and results of a British priority setting partnership. *Spinal Cord* **54** (5), 341–346.

Vásquez N., Knight S. L., Susser J., *et al.* (2015) Pelvic floor muscle training in spinal cord injury and its impact on neurogenic detrusor over-activity and incontinence. *Spinal Cord* **53** (12), 887–889.

Diastasis – holistic assessment and management: a systematic approach to managing diastasis

There is little consensus on the best method of rehabilitating patients with diastasis rectus abdominis (DRA). The available evidence for a best-practice approach for managing the condition was assembled in one poster. The take-home message is that there is no one-size-fits-all treatment, and each patient will need an individualized approach. The aim of this infographic is to raise awareness of DRA among those who are less familiar with treating the condition, and give them an overall view of its management. It highlights the need to focus on how tense the linea alba is rather than the size of the gap. This approach is supported by the literature, which has presented evidence that inter-recti distance can actually increase with transversus abdominis (TVA) contraction (Lee & Hodges 2015; Theodorsen *et al.* 2019). Therefore, the basis of rehabilitation is tension rather than whether the gap physically decreases during exercise. The present author has applied this approach in clinical practice with excellent results. Anecdotally, core engagement and the ability to contract the TVA greatly improve when muscles such as the

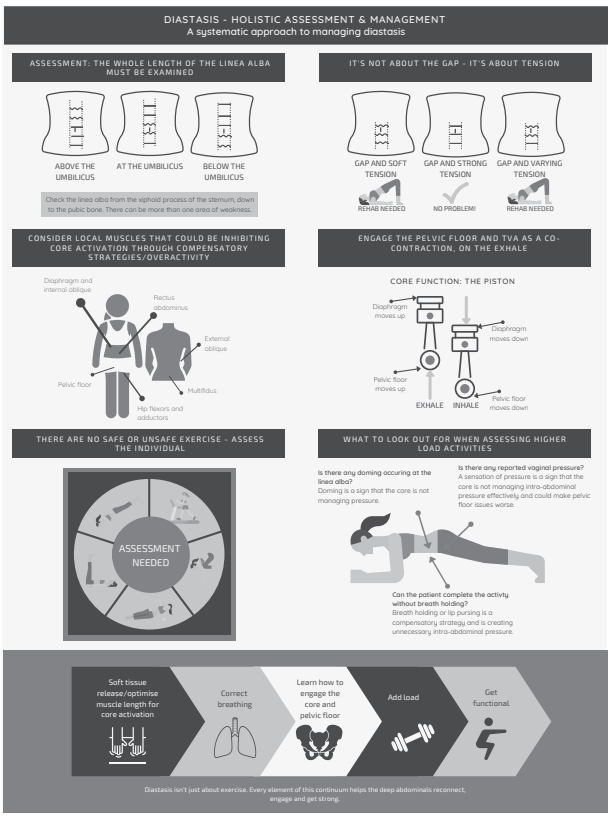

Figure 2. Infographic: "Diastasis – holistic assessment and management: a systematic approach to managing diastasis".

abdominal obliques have been released first. Assessing functional responses to exercises on an individual basis can potentially give patients more freedom to return to doing things that they enjoy. However, functional ability will vary from person to person, even if one DRA is similar to another in terms of size or tension. The focus of clinical management should be on whether patients can create tension across the linea alba during the task rather than relying on the size of the gap. When functional activities are not yet appropriate, rehabilitation can be goal-specific and modifications can be made to it. Further research is needed in order to identify which evidence-based rehabilitation protocol provides the best possible outcome for patients. The main implication of this poster is that, until we have strong evidence of the efficacy of a particular treatment regime, each patient should be individually assessed, and the tension created by each rehabilitation exercise should be evaluated. Approaches that produce the most tension across the linea alba should be used in treatment, but it is necessary to ensure that the level of exercise does not exceed the ability of the patient's core to manage pressure. All images are either taken with permission from the Canva graphic design platform (www.canva.com), or were created by the author.

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Utilizing the CARE Measure for evaluating virtual care within pelvic health physiotherapy during the COVID-19 pandemic

The aims of this study were to: evaluate how patients perceived care provided during the COVID-19 lockdown using the Consultation and Relational Empathy (CARE) Measure (www.caremeasure.org) empathy score; and establish if telephone appointments are an effective means of communicating with patients in a pelvic health context. The CARE Measure gauges empathy in the context of the therapeutic relationship. Empathy is crucial to developing patient–clinician relationships (Mercer & Reynolds 2002; Hojat *et al.* 2013), influences positive outcomes (Elliott *et al.* 2011; Hojat *et al.* 2013), and improves patient compliance and satisfaction (Kim *et al.* 2004). In previous years, the present authors' pelvic health physiotherapy team received high marks on the questionnaire with an average score of 47.1. This evaluation was intended to establish if the care provided during the COVID-19 pandemic scored as highly as usual care in previous years. The CARE Measure is a national database of 316320 questionnaires with high face and concurrent validity, and internal and structural reliability. Twenty patients were randomly selected to be interviewed by telephone after a virtual appointment. The CARE Measure was used, and data were entered into a Microsoft Excel spreadsheet (Microsoft Corporation, Redmond, WA, USA). This information was entered into the CARE Measure tool. The results were then compared with the national average score for physiotherapy, and the

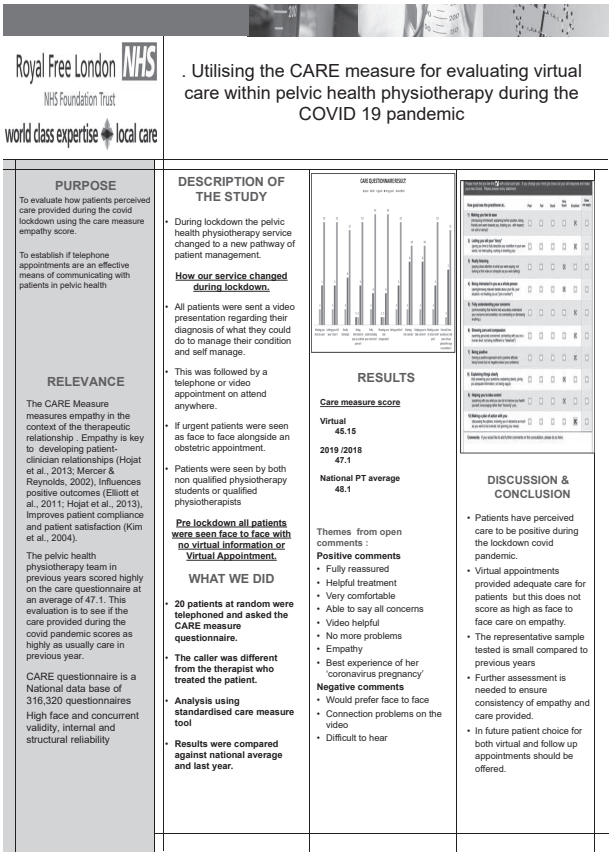

Figure 3. Research: "Utilizing the CARE Measure for evaluating virtual care within pelvic health physiotherapy during the COVID-19 pandemic".

service's score for the previous year. The results were less favourable than those for the previous year. However, the participants did report that change to the service was appropriate given the restraints in place at the time. Patients should be offered the option to have virtual care appointments if these are clinically appropriate in the future. The care measure scores were as follows: (virtual) 45.15; (2019/2018) 47.1; and (national physiotherapy average) 48.1. Participants perceived their experience of care to be positive during the COVID-19 pandemic lockdown. Virtual appointments provided adequate care for patients, but this approach does not score as highly as face-to-face care for empathy. The representative sample tested was small compared to previous years. In future, patients should be offered a choice of both virtual and follow-up appointments.

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Designing an intervention to reduce the rate of surgical intervention in women with pelvic floor dysfunction using the Behaviour Change Wheel

Despite level 1 evidence that PFMT can effectively treat PFD (Dumoulin *et al.* 2017), the lifetime risk of having to undergo surgery remains high (Wu *et al.* 2014). As highlighted by the recent mesh inquiry (Cumberlege 2020), surgery for PFD can be associated with significant adverse effects. In a novel approach, the Behaviour Change Wheel (BCW) (Michie *et al.* 2014) was applied to develop an intervention to reduce the rate of surgical intervention in women with PFD. Adherence to PFMT is essential for this to be effective (Dumoulin *et al.* 2015), and BCW mapping identified targeting PFMT adherence behaviours as a priority in order to reduce surgical intervention. Research into PFMT adherence was reviewed, and then triangulated with data from the wider exercise adherence literature and insights from psychological theories. The data were analysed using the COM-B [capability, opportunity, motivation and behaviour] system (Michie *et al.* 2011) and APEASE [acceptability, practicability, effectiveness, affordability, side effects and equity] assessments, and the application of evidence-based matrices and taxonomies. An intervention logic model was devised, and assessment, including outcome and process evaluations, is now planned. Research questions have been devised to determine the effectiveness and perceived mechanisms of action of the intervention. Application of the BCW in

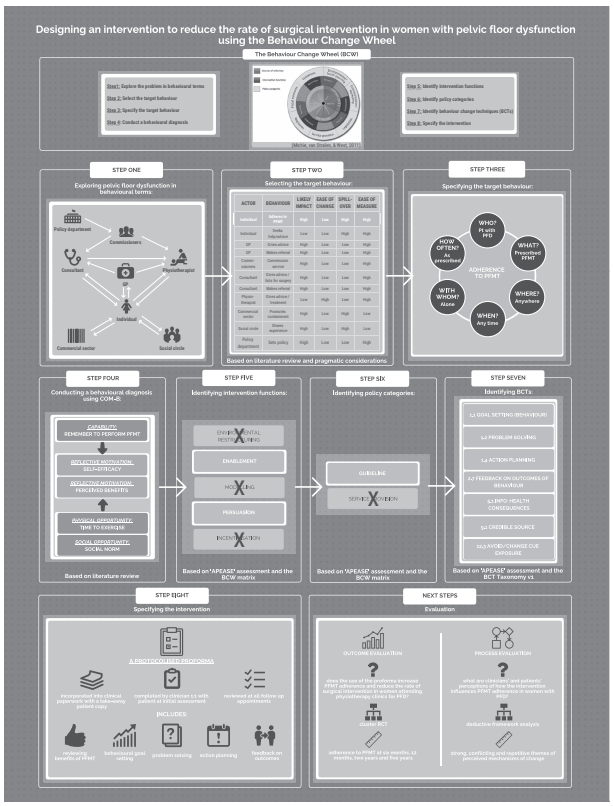

Figure 4. Infographic: "Designing an intervention to reduce the rate of surgical intervention in women with pelvic floor dysfunction using the Behaviour Change Wheel".

this context resulted in the systematic development of an evidence-based, theory-informed approach to reduce surgical intervention in women with PFD by increasing adherence to PFMT. The clarity of the development process and resulting logic model will enable future evaluation of the intervention's effectiveness and perceived mechanisms of action. This approach underlines the importance of adherence to PFMT. The indication that adherence may be improved by reviewing treatment benefits, behavioural goal setting, problem solving, action planning and feedback on outcomes has potential implications for all pelvic health practitioners. The BCW diagram (Michie *et al.* 2011) is used with permission. All other images were sourced from the Venngage infographic maker (https://venngage.com).

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Postnatal pelvic health: triage is needed – an innovative solution to help triage postnatal women should they require support

Part of the UK National Health Service (NHS) Long Term Plan is to "improve access to postnatal physiotherapy to support women who need it to recover from birth" (NHS 2019, p. 49). NHS England propose "a new universal [postnatal] check at 6–8 weeks for new mothers" (Kanani & Waller 2020). However, at present, there is a huge shortage of specialist physiotherapists in the UK. According to statistics for 2018 (ONS 2019; NISRA 2020; NRS 2020), there were only approximately 900 physiotherapists working in this area in a year that 713 000 births were registered. Therefore, as pelvic health physiotherapists, we need to step forward, speak up, create solutions and shine a light on what we can do to help. The present author proposes a four-tier system in which every woman receives the following services in the postnatal period:

(1) educational resources at the 6–8-week check-up;
(2) a simple and accessible postnatal pelvic health screening tool;
(3) telephone triage/screening for those who are identified as being at risk; and
(4) face-to-face appointments or group sessions to provide further education.

The key to this proposal is a simple and accessible postnatal pelvic health screening tool.

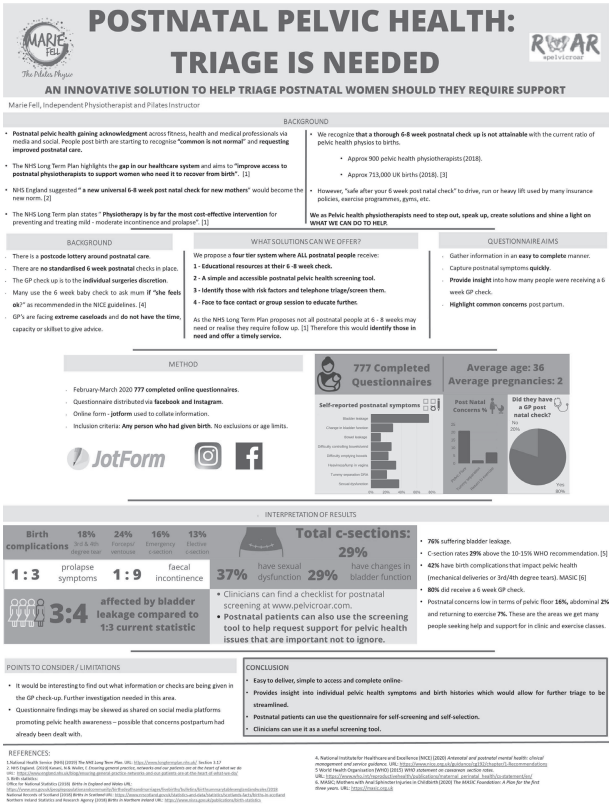

Figure 5. Service development project: "Postnatal pelvic health: triage is needed – an innovative solution to help triage postnatal women should they require support".

This could help to: identify women with pelvic health issues; gather relevant information; and triage those who may need help. To develop this tool, the present author created an online questionnaire in order to gather voluntary responses via social media. This was trialled with pelvic health, musculoskeletal and fitness professionals, general practitioners, and new mothers in order to identify the best questions and language to capture data. Once finalized, the tool was launched, and 777 postnatal women responded over 8 weeks. An online data analyst evaluated the responses, and identified the following pelvic health issues: prolapse (33%); faecal incontinence (11%); bladder leakage (76%); and sexual dysfunction (39%). While concerns about these areas were minimal, many people seek help for pelvic floor problems (16%) and with their return to exercise (7%). These findings show that the online questionnaire is a valuable screening tool for both clinicians and patients that helps to identify when further support is needed. Cheap, simple and easy to complete, it facilitates the immediate and effective triage of patients' postnatal pelvic health symptoms, and allows women to self-select and seek help if they need it. A pilot trial in clinical practice is recommended in order to take this innovation forward.

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Service evaluation: preventative approach to managing pelvic girdle pain in pregnancy

On the basis of global evidence and as recommended by the UK Department of Health (DH), all pregnant women without contraindications should be encouraged to participate in exercise as part of a healthy lifestyle (DHPAHIP 2011; DHSC 2019). A barrier that can prevent women exercising, and reaping the physical and psychological benefits of physical activity is pelvic girdle pain (PGP). Women with PGP report that it has an impact their daily activities. It is vital that individuals experiencing the early onset of pregnancy-related aches and pains are given the correct guidance, advice and exercises in order to prevent their symptoms progressing and affecting their ability to engage in physical activity (POGP 2015; RCOG 2015). Women experiencing these issues self-referred to a one-off class that consisted of evidence-based advice, recommendations for physical activity and exercises performed under the supervision of an obstetric physiotherapist. The participants completed a specific PGP outcome measure prior to the class and 4 weeks after the intervention (Stuge

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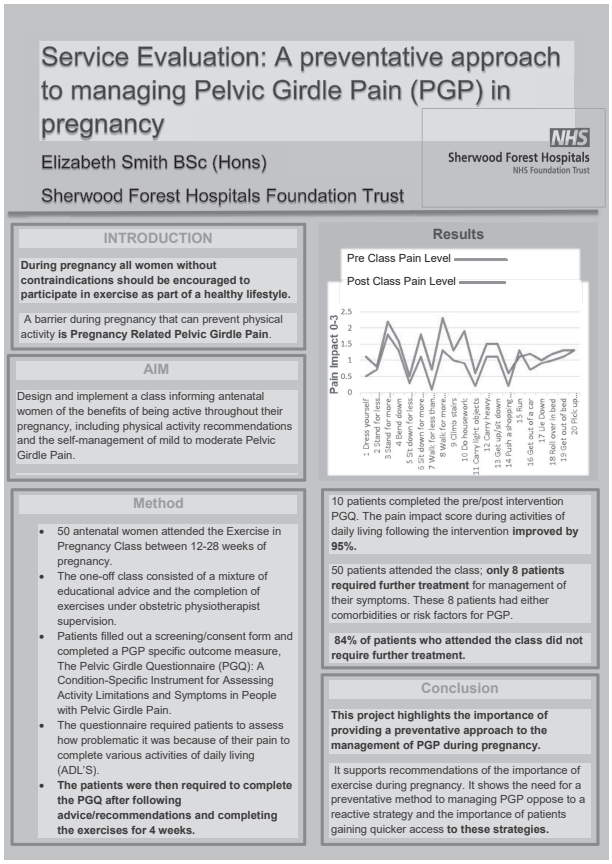

Figure 6. Service development project: "Service evaluation: a preventative approach to managing pelvic girdle pain in pregnancy".

et al. 2011). This questionnaire measured pain scores, and compared these before and after the intervention. The findings support a preventative approach, and corroborate the existing literature in terms of pain management strategies, exercise prescription and the risk factors that increase the prevalence of PGP during pregnancy. This project underlines the importance of managing PGP, and supports DH recommendations about the physical and psychological benefits of encouraging women to be active during pregnancy. Further studies are required to improve statistical significance by using a larger sample. The intervention consisted of an evidence-based preventative approach to the management of PGP, and included recommendations about physical activity, supervised exercise, advice about posture and positioning, and informative strategies. The results highlight the need for a preventative approach to the management of PGP, as opposed to a reactive one, and the importance of gaining quicker access to these interventions, as delivered by a specialist obstetric physiotherapist.

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Signposting to pelvic health physiotherapy following COVID-19

The potential impact of COVID-19 is known to be far-reaching. For example, it has the potential to cause urinary incontinence or prolapse, or exacerbate existing symptoms of these problems. Individuals may also have difficulty regaining full bladder control following catheterization, and people who have been hospitalized by COVID-19 can suffer from constipation. An opportunity was seen to direct these patients towards the healthcare professionals most suited to managing their symptoms in accordance with the relevant NICE (2019) guidelines. The main reason for developing this poster was to promote pelvic health physiotherapy as the first-line treatment for patients with PFD who have experienced some of the symptoms of COVID-19. When creating it in April 2020, there was limited robust evidence available regarding COVID-19 and PFD, and therefore, clinical reasoning was used with respect to breathing dysfunctions and

Figure 7. Infographic: "Signposting to pelvic health physiotherapy following COVID-19".

similar pathologies, and the impact of these conditions on the pelvic floor. The poster was disseminated by NHS England, and a press release by POGP highlighting the role of pelvic health physiotherapy was written to accompany it (Mann 2020). It is hoped that posters are now on display in patient toilets and waiting areas across the UK, and that awareness of the role of pelvic health physiotherapy has increased. There are already signs of an increase in pelvic health physiotherapy referral rates. Anecdotal feedback indicates that the infographic has been welcomed and praised for its clear and concise message. Rebecca Barratt, a graphic designer, created the poster and images. The POGP Board of Trustees approved the final wording.

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