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Light at the end of the tunnel: design, implementation and outcomes of a pelvic pain management programme

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ABSTRACT

Background: Chronic pelvic pain (CPP) is a complex, prevalent condition that significantly impacts quality of life, work, relationships, and healthcare resources. Management remains challenging, with variation in practice and no national consensus. Evidence supports a multidisciplinary approach to treatment.

Objectives: To describe the design, implementation, and outcomes of a multidisciplinary Pelvic Pain Management Programme (PPMP), reporting results from four programme cycles.

Methods: The PPMP was developed using behaviour-change principles and delivered over 12 weekly sessions. Participants completed validated psychometric questionnaires at baseline, programme completion, and 3-month follow-up. Change was analysed using repeated-measures ANOVA and clinical significance assessed using the Minimal Clinically Important Difference or the Reliable Change Index.

Main Outcome Measures: Psychometric questionnaires assessed the following outcome measures: pain intensity, pain self-efficacy, kinesiophobia, anxiety, depression, patient activation, health-related quality of life, pain acceptance, and catastrophising.

Results: Thirty-three participants completed the programme, with 19 full datasets. A statistically significant improvement was recorded across all measures, except for anxiety. At the 3-month follow-up, 79% of participants reported a clinically significant improvement in several areas. Notably, 82% of participants showed clinically significant improvement in pain self-efficacy, 74% in depression, and 81% in pain catastrophising at programme completion.

Conclusions: A PPMP is feasible, acceptable, and associated with significant and sustained improvements across biopsychosocial outcomes. Tailored PMPs may address gaps in CPP care and support long-term recovery.

What is New? This represents the largest published dataset evaluating a PPMP. These results highlight the potential of PPMPs to achieve pain reduction and sustainable improvement in quality of life for individuals with CPP.

Keywords: Multi-disciplinary working, pain, pain management, pain programme, pelvic pain

Introduction

Chronic pelvic pain (CPP) is common, with an estimated prevalence of 24% in the United Kingdom (UK) communities.[1] However, wide-ranging estimates are reported, partly due to ambiguity in defining CPP, which reflects the complexity of the condition. CPP impacts quality of life, affecting work, relationships, sexual interactions, and mental health.[1] It contributes to higher rates of absenteeism from work and education, and imposes an economic burden on healthcare, with estimated National Health Service costs exceeding £326 million annually.[2,3]

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Effective management of CPP remains challenging, 45% of UK gynaecologists express concerns about current practices.[4] There are UK-wide variations in the management, with no standard consensus. Ineffective and disjointed treatment can lead to ongoing disability and risk of iatrogenic harm. To address the complexities of CPP, the Royal College of Obstetricians and Gynaecologists and the British Pain Society (BPS) advocate for a multidisciplinary approach from the outset.[5,6] Evidence demonstrates that a multidisciplinary approach to pain management, compared to unimodal or standard care, results in significantly greater improvements in pain scores and objective measurements, such as increased likelihood of returning to work.[7]

Pain Management Programmes (PMPs) address the multifaceted and complex nature of CPP utilising integrated, multidisciplinary management. This paper aims to describe the design, implementation, and outcomes of a PMP tailored to assist individuals in managing pelvic pain. It reports on the outcomes from four cycles and feedback from focus groups.

Creating an Inclusive Community

We aimed to be inclusive and accessible to individuals experiencing CPP in bodies categorised as female at birth, regardless of gender identity. Feedback from focus groups highlighted the difficulties participants encountered discussing personal subjects in programmes with mixed-sex groups. It is vital that participants feel comfortable sharing experiences, the sex of other participants contributes towards this perception of comfort and should be carefully considered.[7] Additionally, we recognise the unique challenges those born female encounter in accessing healthcare, such as underfunded and under-researched medical conditions and difficulties obtaining accurate, timely diagnoses. Whilst acknowledging these aspects, we aim to be inclusive and accessible to all gender identities, creating an environment in which everyone feels acknowledged, supported, and able to benefit from the care and community we offer.

Pain Management Programmes: A Multidisciplinary Approach to Care

To effectively address the wide-ranging impact of CPP on an individual's quality of life, optimal therapeutic strategies encompass all biopsychosocial aspects of health. This requires a collaborative multidisciplinary team (MDT) with the patient as the central focus. PMPs offer evidence-based and cost-effective methods for amalgamating knowledge and experience from a range of specialties.[8] PMPs are designed to enhance the well-being of individuals living with conditions such as back pain and fibromyalgia.

The BPS recommend that teams are composed of healthcare professionals from relevant backgrounds, including a pain specialist, clinical psychologist, physiotherapist, dietitian, occupational therapist (OT), and specialist nurses.[8] Wilkinson and Whiteman[9] outlined the basic structure and content of PMPs.

The overarching goal of PMPs is to empower participants to improve their functional capacity and achieve personally meaningful objectives. This is achieved by generating behaviour change to enhance both physical and mental health and improve quality of life. Behaviour changes groups go beyond providing peer support and education, although both are key components. To achieve this, PMPs should be delivered by professionals trained in behaviour change approaches. We adhered to NICE recommendations by designing our programme to promote awareness of consequences, encourage positive attitudes towards change, support goal setting and planning, and address social and contextual factors influencing behaviour.[10]

PMPs are usually delivered in a group format of 8–12 participants. This group setting fosters normalisation of experiences, mutual sharing and learning, and encourages social interactions. Complementing the group sessions, targeted individual therapy can also be provided when specific needs are identified. The BPS recommends 36 hours of content to be delivered over 12 half days.

Reimagining Pain Management Programmes: Tailoring to the Unique Needs of People with Pelvic Pain

Identifying the Unmet Need

In our hospital, people with CPP were historically referred to generic PMPs, but anecdotal feedback suggested these fell short of expectations. To better understand their experiences, we interviewed people with CPP about their experience of generic PMPs. A key issue was the mixed-sex group composition, participants felt that this hindered open discussion of sensitive topics. Additionally, generic programmes did not approach subjects like sex and intimacy with sufficient space or context. They also lacked content relevant to those assigned female at birth, such as hormone-related issues and pelvic floor health.

"I felt as if I was the only one there with my problem. The majority seemed to have back issues. I understand that pain is pain to a degree, but I was hoping it would be more specialised to the problems I was having."

"The range of people and problems meant it was not specific enough for me to take anything from. Listening to someone who has chronic joint pain did not give me anything to work with, and they wouldn't have needed to hear about my pelvic pain. I am not sure I got anything out of it."

There is limited access to PMPs tailored for pelvic pain in the UK, with only a handful of centres offering such programmes. Recognising this gap, we aimed to establish the first PPMP in the Southwest UK.

Bringing Together the Team and Programme

We began by establishing our MDT, initially led by a Clinical Psychologist and Pelvic Health Physiotherapist. Recent ACOG guidance supported having a physiotherapist lead, as multimodal physical therapy reduces pain intensity compared to inert or non-conservative treatments.[11] As the programme evolved, we added an OT as a core team member to deliver content on work and employment support. The Endometriosis and Pelvic Pain Clinical Nurse Specialist, trained in facilitator skills and now acts as participant liaison and liaison with gynaecology services. Additional contributions come from a gynaecologist, nutritionist, and psychosexual medicine-trained doctor. To provide comprehensive, specialised care, the pathway also includes a consultant pain specialist, psychiatrist, and expert patient input.

The pelvic pain MDT collaboratively curated the content, aligning with BPS guidelines while customising for pelvic pain. Core elements included pain mechanisms, chronic pain impact, goal setting, confidence-building, self-compassion, sleep, flare-up strategies and exercise. In addition, the team integrated pelvic pain-specific tailored topics, see Table 1 for details of topics covered in each session.

Sessions covered different topics and included time for goal-setting and action-planning, feedback, monitoring, and social support, in line with NICE guidance.[10] The programme is delivered by professionals experienced in behaviour change approaches, with competencies aligned to the Health Behaviour Change Competency.[12] Borek and Abraham's[13] conceptual review, describes the processes by which small groups promote behaviour change. The key domains are group development, dynamic group processes, social change processes, personal change processes and group design and operating parameters.

Table 1. Pelvic pain management programme session topics and structure.

Session	Intro	Topic 1		Topic 2	End
1	Welcome and short relaxation exercise	Psychometrics Ground rules Ice breaker	Break	Consequences of pelvic pain Programme aims Attendee hopes	Group hopes
2		Warm-up activity Pain mechanisms and the nervous system		Exploring values SMART goal setting	Small group goal setting
3		Pelvic anatomy and pelvic floor Relaxation exercise		Activity management Pacing	
4		Exercise		Stress	
5		Bladders and bowels		The CBT model	
6		Hormones and cycles		Medication	
7		Flare-ups		Sleep	
8		Intimacy and sex		Self-compassion Mindfulness	
9		Mood and emotions		Employment	
10		Nutrition		Relationships and communication	
11		Posture		Problem solving	
12		Pulling together and reflections Troubleshooting exercise		Setting long-term intentions Psychometrics	

CBT: Cognitive behavioural therapy.

Group development progresses through stages: forming, storming, norming, performing, and adjourning, during which members build relationships, define roles, and work toward shared goals. Dynamic group processes such as identification, cohesion, norms, roles, and group climate shape interactions and motivation. Social change processes, including comparison, facilitation, modelling, influence, and support, drive behavioural alignment within the group. Personal change occurs through cognitive shifts, skill development, and feedback in a supportive environment. Finally, group design, including its purpose, composition, size, leadership, facilitation, and interaction management, determines how effectively it promotes and sustains behaviour change. Facilitation techniques and group exercises are included throughout the PPMP supporting these processes.

The programme ran over 12 weeks, one afternoon per week. To support group sessions, one-to-one appointments with lead facilitators were scheduled at key points: a pre-programme review to assess readiness and suitability, a mid-point review to monitor progress and address concerns privately, and a final review to consolidate learning and plan next steps. A follow-up group session was held three months post-programme to assess ongoing progress. Participants also had access to individual sessions with a pelvic health physiotherapist for pelvic floor assessment and tailored bladder and bowel advice. Dedicated sessions were offered to involve and support partners and carers.

Patient Selection and Screening: Who is Invited to the Programme?

Individuals assigned female at birth with CPP causing significant disability or reduced quality of life despite conventional treatments were identified as potential candidates for the PPMP. Referrals came from outpatient clinics, the pelvic pain MDT, or acute hospital presentations. Interested patients received an information leaflet (Figure 1) and were referred for a screening assessment with a lead facilitator to evaluate suitability and readiness. Additional interventions, such as a medication review with a Consultant Pain Physician, individual physiotherapy, or psychiatric input, were offered based on need (see screening algorithm, Figure 2).

Attendance was tracked, and reasons for withdrawal were noted where available. Non-engagement after confirmation was often due to life events such as bereavement, employment changes, health issues, treatment adjustments, or social anxiety. Where appropriate, patients were signposted to community wellbeing teams for anxiety support and deferred to future cohorts.

Given the programme's progressive structure, participants were encouraged to attend all sessions. Missing more than two sessions, especially early on, triggered a review to determine whether deferral or withdrawal was appropriate.

Common reasons for non-completion included personal or family illness, bereavement, work changes, physical difficulties attending, or deciding the timing or content was unsuitable.

Psychometric Questionnaires: Evaluating the Impact of the PPMP

Participants completed a range of psychometric questionnaires at the start of the programme, upon completion, and again at three months post-programme. Statistical significance of change was analysed using repeated measures ANOVA. For each outcome measure, clinical impact was assessed using either the Minimal Clinically Important Difference (MCID) or, where unavailable, the Reliable Change Index (RCI). The MCID represents the smallest change in an outcome that is considered meaningful and important to patients. The RCI determines whether a change in a participant's score over time is statistically significant, exceeding the expected variability due to measurement error, and is calculated using the standard error of measurement. Each outcome variable is described in the sections below, alongside the corresponding MCID or RCI. Where possible, we used values referenced for pain cohorts.

Pain Intensity

Participants' average pain intensity is measured using a Numeric Pain Rating Scale (0–10).

A reduction by 2 points indicates the MCID.[14]

Pain Self-efficacy

We assess the participants' confidence in activity despite pain using the Pain Self-Efficacy Questionnaire (PSEQ). Low scores on the PSEQ (<20) are a predictor of long-term disability and depression. A study of people with chronic lower back pain observed an MCID of 5.5 for the PSEQ.[15]

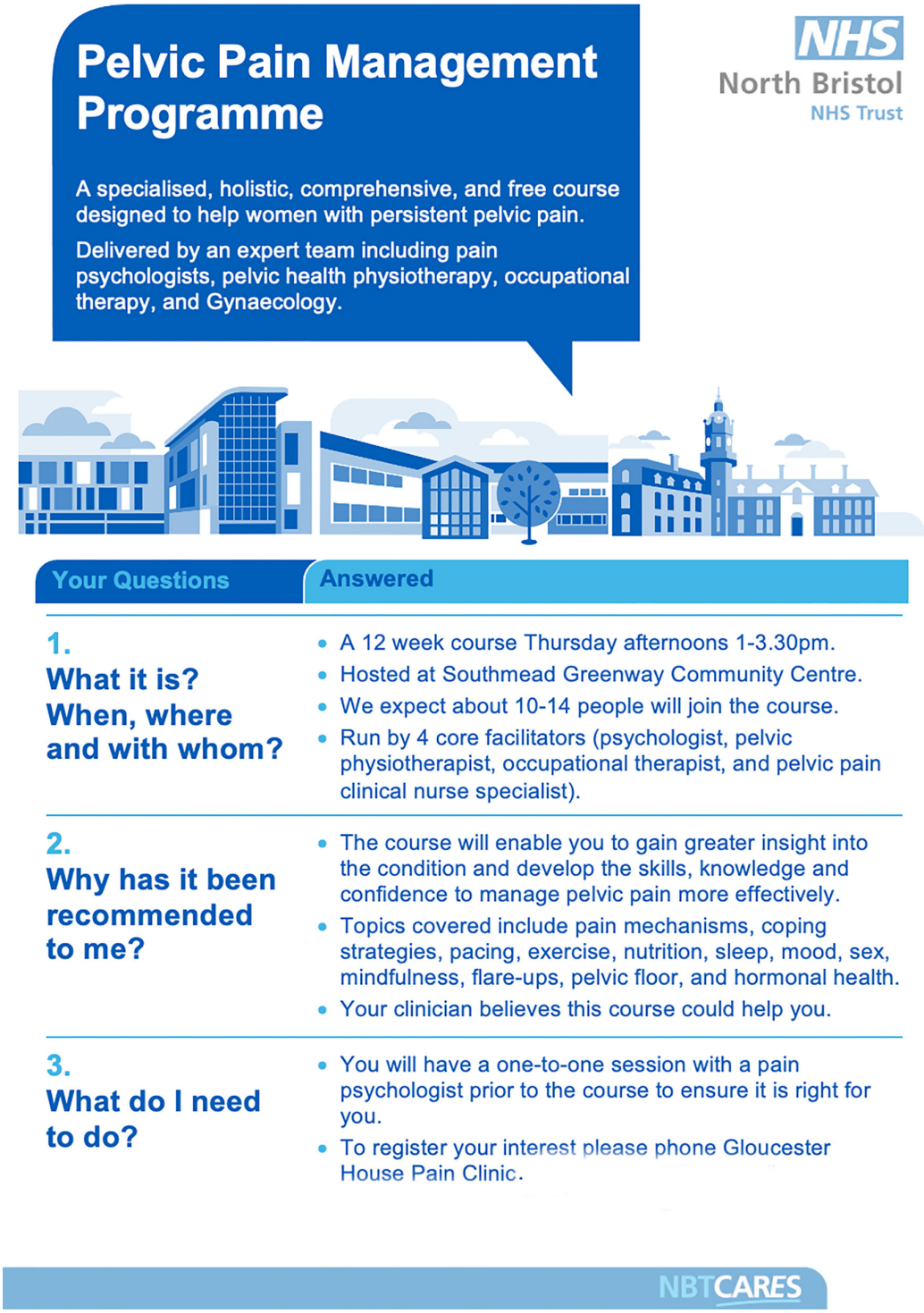

Figure 1. North Bristol Trust pelvic pain management programme patient leaflet.

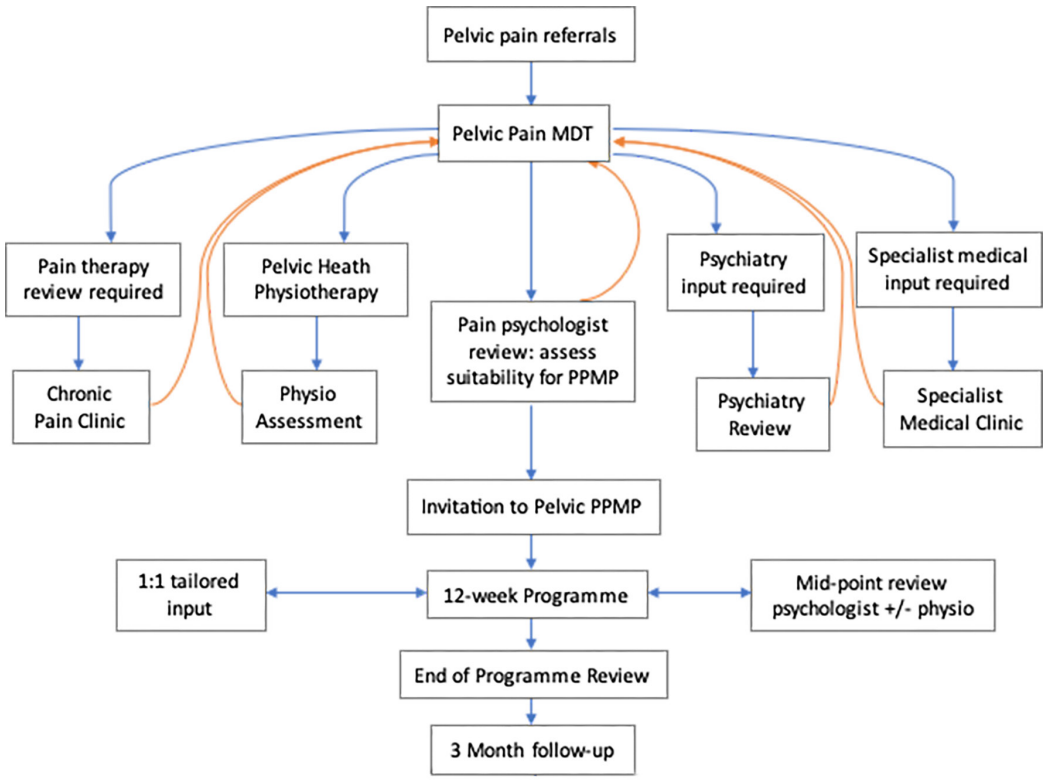

Figure 2. Algorithm of screening, assessment and interventions.
MDT: Multidisciplinary team.

Fear of Movement

The Tampa Scale of Kinesiophobia (TSK) is used to assess fear of movement. A reduction of 6 points has been shown to be the MCID for the TSK.[16]

Anxiety

Participants' anxiety was measured by the Hospital Anxiety and Depression Scale (HADS). A reduction of 1.32 is evidenced to be the MCID for the HADS anxiety subscale.

Depression

The HADS is also used to measure depression. On the depression subscale, a reduction of 1.40 has been indicated as the MCID.[17]

Patient Activation

The Patient Activation Measure (PAM) measures participants' knowledge, skills and confidence in managing their own wellbeing. Patient activation is a significant predictor of future health care costs and health outcomes.[18] An increase of 4 has been shown to be the MCID for the PAM.[19]

Health Related Quality of Life

Participants' health-related quality of life is measured by the EuroQol-five Dimensions, five-level (EQ-5D-5L). The Visual Analogue Scale (VAS) included in the EQ-5D-5L measured participants' perceived health. An improvement of 15 on the EQ-5D-5L VAS is the proposed MCID.[20]

Acceptance of Pain

The Chronic Pain Acceptance Questionnaire measured participants' acceptance of pain. As there is no MCID reported in the existing literature for this measure, the RCI was calculated to determine change over and above measurement error.[21]

Pain Catastrophising

Participants' catastrophic beliefs about pain were measured using the catastrophising subscale of the Coping Strategies Questionnaire. As there is no MCID reported in the existing literature for this subscale, the RCI was calculated to determine change over and above measurement error.

Outcomes

Since establishing the PPMP, we have conducted four cycles with a total of 33 participants completing the full 12 weeks. The participants ranged in age from 21 to 59 years with an average age of 37 years. Diagnoses include endometriosis, adenomyosis, bladder pain syndrome, vulvodynia and vaginismus. Some attendees suffered co-morbid persistent pain conditions, such as osteoarthritis and fibromyalgia.

Of the 33 participants who completed the programme, nineteen participants provided full datasets at all three time points (18 for the Numerical Pain Rating Scale). Table 2 demonstrates the mean scores for each psychometric questionnaire (pre-programme, immediately post-programme and 3-months post-programme) and F scores and *P* values obtained from repeated-measures ANOVA. Post-hoc two-tailed pairwise t-tests, adjusted using the Holm-Bonferroni correction, determined between which time points significant differences occurred.

All questionnaires, excluding that one measuring anxiety, showed statistically significant change across time. Post-hoc analysis demonstrated that pain intensity, pain self-efficacy, fear of movement, depression, patient activation, perceived health and pain catastrophising all significantly improved between week one of the programme and week 12. This change was maintained at the three-month follow-up for all but depression. Whilst pain acceptance showed significant change overall in repeated measures ANOVA, post-hoc pair-wise analyses were not significant when adjusted with the Holm-Bonferroni correction.

For evaluating how this statistical significance translated into clinically meaningful change in the lives of programme attendees, 27 sets of pre- and post-programme psychometric questionnaires and 22 sets at 3-month follow-up were compared to MCID or RCI figures for each measure. Table 3 shows the proportion of participants who achieved MCID or RCI at each time point compared with pre-programme scores (Week 1).

At the post-programme assessment, every measured variable showed that at least 44% (12/27) of participants had made a significant clinical improvement. The variables demonstrating the biggest positive impact at the initial post-programme assessment were pain catastrophising (81%, 22/27), pain self-efficacy (74% 20/27), depression (70% 19/27) and pain acceptance (70% 19/27). The outcome demonstrating the smallest positive change was fear of movement, with 44% (12/27) demonstrating an improvement meeting the MCID criteria.

Table 2. Mean scores and F and *P* values for repeated measures ANOVA.

		Mean score for psychometric questionnaires (SD)			Repeated measures ANOVA	
Variable	**Measure (n)**	**Pre***	**Post****	**Follow-up*****	**F (df)**	***P* value**
Average pain intensity	NPRS (18)	5.78[a] (1.22)	4.06[b] (1.21)	3.89[b] (2.27)	13.05 (2)	<0.001
Pain self efficacy	PSEQ (19)	24.42[a] (14.72)	35.68[b] (12.02)	36.05[b] (11.23)	11.73 (2)	<0.001
Fear of movement	TSK (19)	28.21[a] (8.11)	23.74[b] (5.32)	23.37[b] (6.17)	9.17 (2)	<0.001
Anxiety	HADS-A (19)	10.16 (3.56)	10.37 (3.27)	11.21 (3.01)	0.55 (2)	0.58
Depression	HADS-D (19)	11.26[a] (3.75)	6.89[b] (4.20)	9.11[ab] (4.82)	5.98 (2)	<0.01
Patient activation	PAM (19)	51.72[a] (15.11)	64.22[b] (15.15)	63.32[b] (14.04)	8.50 (2)	<0.001
Perceived health	EQ-5D-5L: VAS (19)	50.79[a] (20.50)	63.68[b] (18.02)	64[b] (19.74)	7.37 (2)	<0.01
Pain acceptance	CPAQ (19)	53.85[a] (17.75)	62.79[a] (15.26)	63.68[a] (15.12)	4.92 (2)	<0.05
Pain catastrophising	CSQ-CAT (19)	20.63[a] (6.30)	13.68[b] (6.91)	13.47[b] (7.61)	4.92 (2)	<0.05

[a,b,c]: Means not sharing a common superscript letter in a row are significantly different at $P<0.05$ determined by post-hoc two-tailed pairwise t-tests, adjusted using the Holm-Bonferroni correction. Pre*: Pre-programme assessment prior to commencing the programme (Week 1), Post**: Post-programme assessment on immediate completion of the programme (week 12), Follow-up***: Post-programme assessments completed at the 3-month follow-up (approximately Week 25).
SD: Standard deviation, NPRS: Numerical Pain Rating Scale, PSEQ: Pain Self-Efficacy Questionnaire, TSK: Tampa Scale of Kinesiophobia, HADS-A: Hospital Anxiety and Depression Scale-Anxiety subscale, HADS-D: Hospital Anxiety and Depression Scale-Depression subscale, PAM: Patient Activation Measure, EQ-5D-5L: VAS: European Quality of Life 5 Dimensions 5 Level, Visual Analogue Scale, CPAQ: Chronic Pain Acceptance Questionnaire, CSQ-CAT subscale: Coping Strategies Questionnaire-Catastrophising subscale.

Table 3. Percentage achieving clinically meaningful change comparing pre-programme scores to post-programme and at 3 months follow-up (measured using Minimal Clinically Important Difference or Relative Change Index).

		Clinically meaningful change achieved (%)	
Variable	**Measure**	**Post* (/27)**	**Follow up**(/22)**
Average pain intensity	NPRS	56% (15)	41% (9)
Pain self efficacy	PSEQ	74% (20)	82% (18)
Fear of movement	TSK	44% (12)	41% (9)
Anxiety	HADS-A	56% (15)	41% (9)
Depression	HADS-D	70% (19)	45% (10)
Patient activation	PAM	63% (17)	73% (16)
Perceived health	EQ-5D-5L: VAS	48% (13)	45% (10)
Pain acceptance	CPAQ	70% (19)	64% (14)
Pain catastrophising	CSQ-CAT	81% (22)	73% (16)

Post*: Comparing scores before (Week 1) and immediately after the programme (Week 12). Follow-up**: Comparing scores before (Week 1) and 3 months after the end of the programme (approximately Week 25). NPRS: Numerical Pain Rating Scale, PSEQ: Pain Self-Efficacy Questionnaire, TSK: Tampa Scale of Kinesiophobia, HADS-A: Hospital Anxiety and Depression Scale-Anxiety subscale, HADS-D: Hospital Anxiety and Depression Scale-Depression subscale, PAM: Patient Activation Measure, EQ-5D-5L: VAS: European Quality of Life 5 Dimensions 5 Level, Visual Analogue Scale, CPAQ: Chronic Pain Acceptance Questionnaire, CSQ-CAT subscale: Coping Strategies Questionnaire-Catastrophising subscale.

The clinical impact was sustained (within 5%) and, in some cases, improved for four of the measured variables (pain self-efficacy, patient activation, perceived health and fear of movement) at the 3-month follow-up. Pain self-efficacy showed the biggest impact at 3 months, with 82% (18/22) of respondents demonstrating MCID.

Most demonstrated a continued clinically important improvement in pain self-efficacy (82%), patient activation (73%), pain acceptance (64%) and pain catastrophising (73%) at 3 months. Variables with a drop in the proportion of participants demonstrating MCID or RCI at 3 months were pain acceptance (6% decline), pain catastrophising (8% decline), average pain intensity (15% decline), anxiety (15% decline) and depression (25% decline). The biggest drop in the number reporting MCID or RCI at 3 months compared to the initial post-programme scores was for depression, with 70% of participants reporting MCID at completion of the programme and 45% at 3 months.

Focus Groups and Interviews

We conducted focus groups and interviews with participants from the first programme cycle. Findings highlighted several positive outcomes, including feeling less isolated and more validated, suggesting that group activities fostered a sense of community. Many reported improved personal relationships, likely due to increased social interaction and shared experiences. Participants described feeling motivated, learning from others, and experiencing personal growth. Importantly, they felt empowered, gaining a sense of agency through active participation. Overall, group activities had a positive impact across emotional, relational, and developmental domains.

Discussion

Main Findings

Our results demonstrate that tailored pelvic PMPs can deliver measurable clinical improvements and meet the expectations of people with CPP. CPP is a complex entity with evidence to support a combination of organic, psychological and environmental variables driving the severity and impact of pain.[22,23] Therefore, using a simple medical model of pain results in oversimplification and emphasis on the identification and treatment of organic pathology. Our programme recognises the complex drivers of pain, resulting in clinically significant improvements in a range of domains, including pain intensity, for over half the participants.

In the context of our study, the 3-month results hold considerable significance, shedding light on the sustainability of the observed improvements in most outcome measurements. Of note, at least 79% of responding participants continued to report a clinical improvement in several areas, namely pain self-efficacy, patient activation, pain acceptance, and pain

catastrophising. These findings highlight the robust and enduring impact of our intervention.

A significant strength is the sustained enhancement of pain self-efficacy at the 3-month assessment (82% reporting the MCID). Higher levels of pain self-efficacy correlate with a reduction in functional impairment, affective distress, and severe pain hence, therapy that successfully improves levels of self-efficacy is crucial in the management of chronic pain.[24]

Improved patient activation has been highlighted as important on an individual and healthcare service level. For the individual, it leads to improvements in self-management behaviours and a better quality of life.[25] On a service level, it results in reduced service use, hospital admissions and healthcare costs, and improved experiences with care.[26]

Our findings related to pain acceptance indicate that participants sustained a greater degree of acceptance toward their pain at the 3-month review. This shifting mindset was paralleled in our focus groups with one particularly notable quote: "The PPMP gives different strategies on how to live with pain rather than necessarily curing your pain. It is about living with the pain and accepting it.

The maintained improvement in pain catastrophising signifies a decrease in the tendency to magnify and dwell on pain-related thoughts and concerns. Pain catastrophising is linked to poor mental health and has a negative correlation with pain-related outcomes, for example, developing long-term pain, worsening physical disability, higher healthcare costs and increased pain sensitivity.[27]

Strengths and Limitations

The sample of 33 participants limits the statistical power and generalisability of the findings. Although our results are encouraging and reflect the largest published dataset for a pelvic pain-specific PMP in the UK, a larger sample would increase the robustness of our outcomes. People referred to the PPMP tended to experience a greater impact of pain compared to the average patient with CPP. Therefore, the results may not be generalisable to people experiencing less severely impactful pain. The follow-up period of 3 months provides initial insight into sustained effects but does not capture longer-term outcomes. We are exploring the feasibility of 6- and 12-month follow-ups to evaluate the durability of effects. Further information about the outcomes of those who did not attend the full programme or complete questionnaires at each time point could also be valuable. Participants were primarily referred from specialist outpatient settings, which may lead to selection bias. The findings may not be generalisable to individuals with limited access to specialised care.

Clinical and Policy Implications

Our results build on existing evidence supporting the importance of a biopsychosocial approach to pelvic pain. Peters et al.[28] conducted an RCT comparing a traditional approach (exclusion of organic causes and routine laparoscopy before considering non-organic factors) to an integrated approach (equal attention to somatic, psychological, dietary, environmental, and physiotherapeutic factors) from the outset of management.The integrated approach showed greater improvement in pain scores, a greater reduction in disturbance of daily activities, and reduced associated symptoms. Recently, Starzec-Proserpio et al.[11] published a systematic review with meta-analysis demonstrating that multimodal physical therapy is more effective in women with CPP compared with inert or non-conservative measures (e.g., surgery). It follows that the most effective strategy for managing CPP incorporates holistic management from the outset (Figure 3).

However, programmes such as PPMPs cannot feasibly be delivered to all with CPP, and not everyone needs this level of intervention. A solution is a service capable of delivering tiered levels of intervention intensity, with each level incorporating PPMP components. Examples include digitalised PPMP content with self-directed therapies, Pelvic Pain Workshops and higher intensity therapies such as the PPMP and one-to-one therapist sessions.

Unanswered Questions and Future Research

An unanticipated decline in HADS-D depression scores was observed at three-month follow-up: while 70% of participants exceeded the MCID at programme completion, this reduced to 45%. There was also no statistically significant change in HADS-A anxiety scores across the programme, although some participants showed clinically meaningful change. The bidirectional relationship between pain and mental health is well established, and while pain reduction can alleviate both anxious and depressive symptoms, mental health is complex and influenced by multiple factors.[29] The initial improvements in mood may reflect the therapeutic value of a supportive group environment, which mitigates isolation commonly associated with chronic conditions.[30]

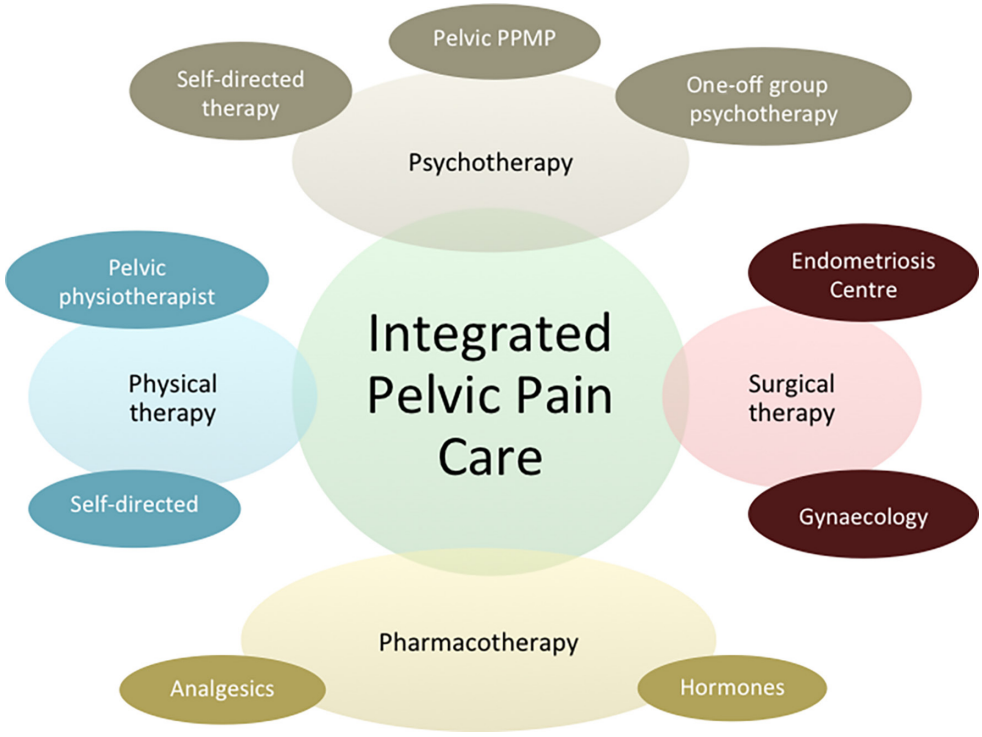

Figure 3. Holistic model of care for chronic pelvic pain.
PPMP: Pelvic Pain Management Programme.

However, these effects appeared less durable following programme cessation. Emerging evidence indicates that continued participation in peer-led support groups may help sustain behavioural changes and associated benefits in pain and psychological well-being.[31] Extending this model to pelvic-specific pain programmes may offer a means of maintaining post-programme outcomes.

Conclusion

In conclusion, people with CPP often struggle to access effective care. Those without a clear organic cause or with persistent pain despite treatment are frequently referred between specialties or returned to primary care, receiving fragmented, unidisciplinary support. Psychological, social, or environmental interventions are typically delayed by years. As a result, patients risk unnecessary procedures, disengagement, and reduced quality of life. Our findings show that pelvic pain-specific PMPs are acceptable to patients and produce clinically meaningful, lasting improvements, highlighting their potential to reduce pain and enhance long-term quality of life.

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Informed consent: Patients gave informed consent for their data to be used for a service evaluation purpose.

Data sharing: Clinical outcome data is stored within the North Bristol Data Trust Databases. Requests for anonymised data can be made to the lead author.

Transparency: This manuscript is an honest, accurate, and transparent account of the study being reported, no important aspects of the study have been omitted and there are no discrepancies from the study as planned.

References

1. Zondervan KT, Yudkin PL, Vessey MP, Dawes MG, Barlow DH, Kennedy SH. Prevalence and incidence of chronic pelvic pain in primary care: evidence from a national general practice database. Br J Obstet Gynaecol. 1999;106:1149-55.

2. Hutton D, Mustafa A, Patil S, Rathod S, Shrikhande G, Advincula A, et al. The burden of Chronic Pelvic Pain (CPP): Costs and quality of life of women and men with CPP treated in outpatient referral centers. PLoS One. 2023;18:e0269828.

3. Armour M, Lawson K, Wood A, Smith CA, Abbott J. The cost of illness and economic burden of endometriosis and chronic pelvic pain in Australia: A national online survey. PLoS One. 2019;14:e0223316.

4. Leow HW, Szubert W, Horne AW. 45% of UK gynaecologists think chronic pelvic pain is managed badly. Eur J Obstet Gynecol Reprod Biol. 2018;224:200-2.

5. Royal College of Obstetricians and Gynaecologists. The initial management of chronic pelvic pain. Green-top Guideline No. 41. London: RCOG; 2012. Available from: https://www.rcog.org.uk/media/muab2gj2/gtg_41.pdf

6. Baranowski AP, Lee J, Price C, Hughes J. Pelvic pain: a pathway for care developed for both men and women by the British Pain Society. Br J Anaesth. 2014;112:452-9.

7. Flor H, Fydrich T, Turk DC. Efficacy of multidisciplinary pain treatment centers: a meta-analytic review. Pain. 1992;49:221-30.

8. The British Pain Society. Guidelines for Pain Management Programmes for adults: an evidence-based review prepared on behalf of The British Pain Society [Internet]. London: The British Pain Society; 2021 [cited 2025 Nov 7]. Available from: https://www.britishpainsociety.org/static/uploads/resources/files/PMP_guidelines_8QD8FJF.pdf?utm

9. Wilkinson P, Whiteman R. Pain management programmes. Br J Anaesth. 2017;17:10–5.

10. National Institute for Health and Care Excellence (NICE). Behaviour change: general approaches. Public health guideline [PH6]. London: NICE; 2007. https://www.nice.org.uk/guidance/ph6

11. Starzec-Proserpio M, Frawley H, Bø K, Morin M. Effectiveness of nonpharmacological conservative therapies for chronic pelvic pain in women: a systematic review and meta-analysis. Am J Obstet Gynecol. 2025;232:42-71.

12. Dixon D, Johnston M. What competences are required to deliver person-person behaviour change interventions: development of a health behaviour change competency framework. Int J Behav Med. 2021;28:308-17.

13. Borek AJ, Abraham C. How do small groups promote behaviour change? An integrative conceptual review of explanatory mechanisms. Appl Psychol Health Well Being. 2018;10:30-61.

14. Farrar JT, Young JP Jr, LaMoreaux L, Werth JL, Poole MR. Clinical importance of changes in chronic pain intensity measured on an 11-point numerical pain rating scale. Pain. 2001;94:149-58.

15. Chiarotto A, Vanti C, Cedraschi C, Ferrari S, de Lima E Sà Resende F, Ostelo RW, et al. Responsiveness and minimal important change of the Pain Self-Efficacy Questionnaire and short forms in patients with chronic low back pain. J Pain. 2016;17:707-18.

16. Monticone M, Ambrosini E, Rocca B, Foti C, Ferrante S. Responsiveness and minimal clinically important changes for the Tampa Scale of Kinesiophobia after lumbar fusion during cognitive behavioral rehabilitation. Eur J Phys Rehabil Med. 2017;53:351-8.

17. Puhan MA, Frey M, Büchi S, Schünemann HJ. The minimal important difference of the hospital anxiety and depression scale in patients with chronic obstructive pulmonary disease. Health Qual Life Outcomes. 2008;6:46.

18. Hibbard JH, Greene J, Overton V. Patients with lower activation associated with higher costs; delivery systems should know their patients' 'scores'. Health Aff (Millwood). 2013;32:216-22.

19. Hibbard JH, Greene J, Tusler M. Improving the outcomes of disease management by tailoring care to the patient's level of activation. Am J Manag Care. 2009;15:353-60.

20. Ostelo RW, Deyo RA, Stratford P, Waddell G, Croft P, Von Korff M, et al. Interpreting change scores for pain and functional status in low back pain: towards international consensus regarding minimal important change. Spine (Phila Pa 1976). 2008;33:90-4.

21. Li T, Liu Y, Sheng R, Yin J, Wu X, Xu H. Correlation between chronic pain acceptance and clinical variables in ankylosing spondylitis and its prediction role for biologics treatment. Front Med (Lausanne). 2020;7:17.

22. Milburn A, Reiter RC, Rhomberg AT. Multidisciplinary approach to chronic pelvic pain. Obstet Gynecol Clin North Am. 1993;20:643-61.

23. Yosef A, Allaire C, Williams C, Ahmed AG, Al-Hussaini T, Abdellah MS, et al. Multifactorial contributors to the severity of chronic pelvic pain in women. Am J Obstet Gynecol. 2016;215:760.e1-14.

24. Jackson T, Wang Y, Wang Y, Fan H. Self-efficacy and chronic pain outcomes: a meta-analytic review. J Pain. 2014;15:800-14.

25. Hibbard JH, Greene J. What the evidence shows about patient activation: better health outcomes and care experiences; fewer data on costs. Health Aff (Millwood). 2013;32:207-14.

26. Greene J, Hibbard JH, Sacks R, Overton V, Parrotta CD. When patient activation levels change, health outcomes and costs change, too. Health Aff (Millwood). 2015;34:431-7.

27. Edwards RR, Dworkin RH, Sullivan MD, Turk DC, Wasan AD. The role of psychosocial processes in the development and maintenance of chronic pain. J Pain. 2016;17:T70-92.

28. Peters AA, van Dorst E, Jellis B, van Zuuren E, Hermans J, Trimbos JB. A randomized clinical trial to compare two different approaches in women with chronic pelvic pain. Obstet Gynecol. 1991;77:740-4.

29. Mills SEE, Nicolson KP, Smith BH. Chronic pain: a review of its epidemiology and associated factors in population-based studies. Br J Anaesth. 2019;123:e273-83.

30. Bair MJ, Robinson RL, Katon W, Kroenke K. Depression and pain comorbidity: a literature review. Arch Intern Med. 2003;163:2433-45.

31. Farr M, Brant H, Patel R, Linton MJ, Ambler N, Vyas S, et al. Experiences of patient-led chronic pain peer support groups after pain management programs: a qualitative study. Pain Med. 2021;22:2884-95.