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Georgine Lamvu

Within network functional connectivity associations with menstrual pain, menstrual pain interference, and lifetime burden of menstrual pain in adolescent girls

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Introduction: Data demonstrating abnormalities in brain structure and functional connectivity have supported the notion that menstrual pain may be related to deficits in central pain processing. We aimed to investigate the role of the triple network model of brain networks implicated in psychiatric disorders in the encoding of the menstrual pain, pain interference, and lifetime burden of menstrual pain in adolescent girls.

Methods: One hundred adolescent girls (ages 13–19) completed a 6-minute resting state fMRI and rated menstrual pain and menstrual pain interference. Lifetime burden of menstrual pain reflected the total number of painful menstrual periods. Thirty resting-state networks were estimated using an unsupervised machine learning method for group independent component analysis. Networks of interest included cingulo-opercular salience (SN), central executive (CEN), and default mode (DMN) networks. Dual regression was used to extract subject-specific network maps corresponding to each a priori network. FSL Randomise was used for the estimation of general linear models and inference to test associations between network connectivity and menstrual pain measures ($P < 0.05$ corrected).

Results: Greater connectivity of SN with amygdala, CEN with lateral orbitofrontal cortex, and CEN with anterior insula was associated with higher menstrual pain. Higher pain interference was associated with greater connectivity between SN and widespread brain areas that share overlap with DMN and CEN. By contrast, higher lifetime burden was associated with reduced connectivity within DMN.

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Seasonal variation in emergency visits for pelvic and perineal pain: a novel approach using computer-generated synthetic data

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Introduction: Chronic pelvic pain is often associated with comorbid mood disorders, which are known to exhibit seasonal trends with increased exacerbation during fall and winter months. However, it is unclear whether such seasonal variations are seen in pelvic and perineal pain. Aim of this study was to determine whether there is seasonal variation in the frequency of emergency visits for pelvic pain using computer-generated synthetic data.

Methods: A retrospective cohort study was conducted using computer-generated synthetic data (MDClone) for all emergency department (ED) visits at a tertiary care centre from April 1, 2013 to March 31, 2023. Synthetic data have been demonstrated to have statistical similarity to real data but without the associated privacy concerns. Female patients with pelvic and perineal pain (PPP) were identified using ICD-10 (R10.2). Frequencies of ED visits for PPP per 1,000 ED encounters were calculated, and fall (October–November) and winter (January–February) were compared with summer (June–July) using odds ratios [95% CI].

Results: The data included 301,754 emergency department visits over 10 years. Female pelvic pain accounted for 2,135 (7.08/1,000) of primary presenting concerns, representing 6.03/1,000 visits in summer, 7.79/1,000 in fall, and 7.94/1,000 in winter. Compared with summer, the odds of ED visit for pelvic pain were 1.29 [1.11–1.50] in fall and 1.32 [1.13–1.53] in winter.

Disclosure: No.

Low-dose naltrexone for chronic pelvic pain: a case series

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Introduction: Naltrexone is a reversible competitive antagonist at μ-opioid and κ-opioid receptors, approved for opioid and alcohol use disorders at doses of 50 to 150 mg daily. Low-dose naltrexone (LDN) may have utility treating chronic pain conditions through alternate pharmacodynamic pathways.

Methods: We conducted a retrospective case series (January 2022–February 2023) of 15 patients with chronic pelvic pain

(CPP), vulvodynia, endometriosis, and/or myofascial pain at a tertiary academic medical center. LDN was added as an adjunct in pain treatment after counselling, the use of which is experimental and off label by the Food and Drug Administration.

Results: The primary outcome was continuation of LDN by subjective pain improvement. Patients tried an average of 11 interventions and experienced pain for a mean of 79 months before trying LDN. Eight of 15 patients (53%) continued taking LDN with a mean daily dose of 7.0 mg. Seven of 15 (47%) discontinued LDN at a mean dose of 4.3 mg. There was no relationship between the pain condition (CPP, vulvodynia, endometriosis, and/or myofascial pain) and perceived benefit. Six of 7 (86%) of those who discontinued LDN had a psychiatric diagnosis, compared with 4 of 8 (50%) who continued. Six of 7 (86%) who stopped LDN reported >2 chronic pain conditions, whereas 4 of 8 (50%) who continued LDN reported a single pain disorder.

Disclosure: No.

Patient characteristics associated with interest in pain psychology for management of chronic pelvic pain

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Introduction: Pain psychology is an evidence-based strategy often recommended as part of multimodal management of chronic pelvic pain. Little is known about patient perception regarding nonpharmacologic strategies, such as pain psychology.

Methods: Retrospective cross-sectional study of new patients presenting to a chronic pelvic pain referral clinic. Patients complete a detailed questionnaire before their first visit, including questions regarding interest in various treatments (indicate "yes," "not sure," or "no"). Descriptive analyses were performed to compare patients according to interest in pain psychology.

Results: Of 1,703 patients who completed questionnaires, 38.6% (n = 657) indicated interest ("yes") in pain psychology, 29.1% (n = 495) indicated "not sure," and 32.3% (n = 551) indicated "no." Patients who indicated "yes" were younger, had seen more doctors for pelvic pain, had higher pain interference scores, and had more work absenteeism (all $P < 0.001$) compared with those who indicated "not sure" or "no." Similarly, they had worse PROMIS physical function, depression, anxiety, sleep disturbance, fatigue, emotional support, and satisfaction with participation in social roles (all $P < 0.001$). They were more likely to have tried hormonal suppression, opioids, neuromodulating medications, and pelvic physical therapy (all $P < 0.001$). Patients who were interested in pain psychology were more likely to consider hormonal therapy, pelvic physical therapy, and neuromodulating medications for pelvic pain (all $P < 0.001$), whereas patients who were not interested ("no") were more likely to be interested in surgery for pelvic pain ($P < 0.001$).

Disclosure: No.

Evaluating language processing artificial intelligence answers to patient-generated queries on chronic pelvic pain

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Introduction: Language processing artificial intelligence (AI) focuses on understanding and generating human language. It can assist healthcare professionals answering medical questions and providing quick access to knowledge. Patients can also use it to try to understand disease processes. We evaluated the answers to patient-generated queries on chronic pelvic pain (CPP).

Methods: Responses generated by ChatGPT (AI Lab OpenAI online chatbot) on causes, risk factors, diagnostic and treatment options, lifestyle changes, alternative therapies, common misconceptions, support groups, and resources for further reading on CPP were examined and assessed by a team of urogynecologists. Statements were evaluated and assigned a numerical score on a 15-point scale according to the criteria of accuracy, relevance, completeness, clarity, and consistency.

Results: Scoring spanned from 9 to 14 on the rating scale. The highest scores were assigned to lifestyle interventions and misconceptions on pain (14/15). By contrast, inquiries about support groups (9/15) and resources for further reading (10/15) received lower scores due to nonexistent website links and inconsistent responses upon repetition. Clarity received the highest average rating (2.78 out of 3), followed by accuracy and relevance (2.67 out of 3). Consistency had the lowest rating (1.89 out of 3).

Disclosure: No.

The burden of comorbid central sensitization-based conditions on the health of patients with chronic pelvic pain

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Introduction: Patients with chronic pelvic pain (CPP) often experience overlapping pain conditions, including those with a component of central sensitization. The goal of this study was to better understand the impact of central sensitization-based conditions (CSBC) on the health of patients with CPP.

Methods: An electronic survey was emailed to1,033 patients seen in the CPP clinic from 2018 to 2022. Patients were excluded if not currently experiencing CPP, were younger than 18 years, pregnant, or did not have a research consent or email address on file. The survey assessed severity and duration of pelvic pain. Respondents were asked which of 10 CSBC they had been diagnosed with previously (eg. irritable bowel syndrome, migraine, fibromyalgia). They were asked to rate their overall and mental health. Demographic data were collected from the medical record. General linearized models adjusting for age were employed to understand the relationship in overall health and comorbid CSBC.

Results: A total of 298 respondents completed the survey; 225 met inclusion criteria. The average age was 36 years, and the majority were White (94.7%). Most (77.8%) have been experiencing pain for more than 5 years. All respondents reported at least one CSBC—most reported 5 CSBC (range 1–10). Respondents with CPP and one CSBC reported a mean overall health of 4.1 (1 = poor, 5 = excellent). Each additional CSBC significantly decreased self-reported overall health ($P < 0.0001$).

Disclosure: No.

Opioid use 10 years after interdisciplinary pain program: are there long-lasting impacts?

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Introduction: Interdisciplinary pain management programs (IPMPs) can decrease opioid use at the time of program discharge, but long-term effects are unknown. This study describes opioid use patterns and outcomes 10 years after completing an IPMP. Participants on opioids versus not on opioids at IPMP start are compared with gain insights into differential long-term efficacy of IPMPs.

Methods: Mixed retrospective-prospective study. Primary outcome was opioid use. Secondary outcomes were numeric pain rating scale (NRS), Pain disability index (PDI). Participant database was screened to identify adults who completed a 4-week IPMP. Retrospective chart review was conducted to gather IPMP data. Prospective telephone surveys were completed to gather long-term outcome and medication data.

Results: Forty-five individuals completed the telephone survey, with a mean age of 49 years at IPMP start and 60 years at telephone follow-up. Of those initially on opioids (n = 33), 88% remained on opioids by program discharge and 45% at long-term follow-up. At follow-up, the opioid cohort had significant reductions in NRS and PDI (P's < 0.0001) from program start scores. Of those initially not on opioids (n = 12), 8% were on opioids by program discharge and 25% at long-term follow-up. At follow-up, the nonopioid cohort had a significant reduction in PDI scores ($P = 0.02$).

Disclosure: No.

Identifying gaps in pelvic pain education: a scoping review and structured analysis of obstetrics and gynecology training milestones

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Introduction: Several clinical practice guidelines on the evaluation/management (EM) of chronic pelvic pain (CPP) are published; however, it is not known whether OBGYN educational milestones (used to measure competency) align with current practice recommendations. This scoping review and structured analysis aims to identify gaps between clinical guidelines for the EM of CPP, and OBGYN training milestones published by educational authorities (ACGME/AAGL).

Methods: Literature search was performed (MEDLINE, PubMed Central, Bookshelf) from January 2018 to September 2022. Peer-reviewed publications were included if they were a systematic review of practice guidelines focused on female CPP. Publications focused on specific CPP conditions, or specific treatments were excluded. Reviewers extracted data and appraised the quality following Critical Appraisal Skills Programme Checklist for systematic reviews. A reflexive thematic analysis (inductive approach) was performed to develop clinical themes presumed important in the EM of CPP. A Delphi methodology was used to assess validity and relevance of the themes in OBGYN training. Themes were used in a SWOT analysis of ACGME/AAGL Milestones used to train OBGYN residents/fellows.

Results: Four articles met inclusion criteria. Twelve clinical themes were conceptualized and achieved ≥90% consensus as being important in the EM of CPP. SWOT analysis showed that ACGME Milestones documents lacked milestones specific to CPP, the AAGL Milestones document has 6 CPP focused competencies (multiple milestones). Milestones on trauma informed care and application of biopsychosocial assessment were absent from all training documents.

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Dyspareunia in recreational female runners: investigating obstetrical and running habit characteristics

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Introduction: The purpose of this study was to investigate relationships between demographic, obstetric, and running habit characteristics with frequency of dyspareunia in recreational female runners (RFRs).

Methods: Eighty-eight healthy RFRs recruited from the local community ran on a treadmill while biomechanical data were collected using insole-embedded inertial measurement units. Following data collection, runners were invited to participate in a series of validated surveys. Sixty-six participants met additional inclusion criteria and completed an abbreviated Epidemiology of Prolapse and Incontinence Questionnaire and Queensland Pelvic Health Questionnaire. Statistical analysis used IBM SPSS Version 28. Descriptive statistics were obtained for all variables. Responses were grouped by self-reported frequency of dyspareunia, defined as painful intercourse (frequent/always, occasionally, never). Differences between the groups were compared using Chi-square for categorical variables and ANOVA for continuous variables. Two tailed significance level was $P < 0.05$.

Results: Dyspareunia was reported by 29 participants (44.6%): occasionally 23 (33.4%) and frequently/always 6 (9.2%). Thirty-six participants (55.4%) reported never having dyspareunia (missing data: 1). Groups did not differ significantly in age, body mass index (BMI), years of running experience, or prior weekly mileage. No statistically significant difference was found between the groups for all obstetric variables, including parity, delivery mode, and number of vaginal deliveries.

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Mast cell activation and elevated VEGF in endometrial lesions contribute to pelvic tactile allodynia and sensitization of parabrachial nucleus in a mouse model of endometriosis

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Introduction: Human endometrial lesions contain activated mast cells (MCs) (Matsuzaki et al., 1998) and elevated vascular endometrial growth factor (VEGF) (Rein et al., 2009). However, how MCs and VEGF contribute to endometriosis-associated chronic pelvic pain (EM-CPP) is unclear.

Methods: We used a mouse (C57BL/6J; 6 to 8 weeks old) model of EM-CPP to test the hypothesis that MC activity and

increased VEGF expression in endometrial lesions drive pelvic tactile allodynia.

Results: First, we evaluated the effects of the MC stabilizer ketotifen fumarate (Keto) or saline on mechanical hypersensitivity in sham control or EM mice. In sham, neither saline (n = 6) nor keto (n = 7) changed mechanical thresholds at any time point. In EM mice, keto (n = 8) but not saline (n = 7) reversed hypersensitivity at the 9, 18, and 36-hour time points ($P < 0.05$). In a separate study, intrauterine infusion of VEGF at 0.1 pg (n = 4) developed mechanical hypersensitivity that lasted 21 days ($P < 0.05$) in mice, while infusion of VEGF at 1 pg (n = 3), 10 pg (n = 4), or 100 pg (n = 3) developed pelvic tactile allodynia that lasted at least 4 weeks ($P < 0.05$). Second, based on the observation that noxious colorectal stimulation increases neuronal activity in the parabrachial nucleus (PBN) (Dunckley, 2005), we evaluated stimulus-evoked neuronal activity in the PBN. Compared with sham control mice (n = 3), this increased in EM mice (n = 3, $P < 0.05$).

Disclosure: No.

Nerve stimulator guided ischiorectal approach for pudendal nerve block

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Introduction: Fluoroscopic-, ultrasound-, nerve stimulator–, computed tomography–, and magnetic resonance image–guided pudendal nerve blocks approaches have been described with varying levels of success. Most pain physicians are not familiar with transrectal and transvaginal approaches, hence the need for a simple, safe alternative approach to pudendal nerve block.

Methods: The patient is placed in a prone position. After aseptic skin preparation, the nonoperating hand of the physician is used to palpate the ischial tuberosity, pushing away the skin and soft tissue laterally. Inferomedial to the nonoperating hand, ie, between the ischium and the anus, the skin is anesthetized with 1% lidocaine using a 27-gauge hypodermic needle. A 22-gauge, 3.5-inch nerve stimulator needle (Pajunk, Karl-Hall-Strasse 1 Geisingen, 78187 Germany) is inserted parallel to plane of the buttock for approximately 3-6 cm, advancing slowly until a visible anorectal twitch is appreciated at 2 to 3 mAmp, duration of 1 millisecond, and 1 Hz repetition rate. The nerve stimulator is then dialed down to 0.5 to 1.0 mAmp to confirm reduced intensity of the twitch. After negative aspiration of blood, 1 mL of local anesthetic is injected which usually abolishes the twitch. A total of 5 mL of local anesthetic suffices for this procedure.

Results: All 20 patients (males and females) had a visible anorectal twitch except in a paraplegic and had successful nerve blocks.

Disclosure: Any of the authors act as a consultant, employee, or shareholder of an industry for: Pacira Pharmaceuticals.

Vulvodynia and the vaginal microbiome: a preliminary genomic analysis utilizing artificial neural networks

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Introduction: Recurrent vaginal infections are associated with vulvodynia (VVD), yet the literature is conflicting regarding vaginal microbiomes in VVD. Our aim was to determine whether there is a difference in the microbiomes in VVD versus controls using additional genomic analyses.

Methods: Fifteen participants aged 21 to 50 years with >6 months of VVD were compared with 8 controls without pelvic pain with validated questionnaires, physical examination, and a midvaginal swab analyzed with 16s rRNA sequencing. Vaginal microbiome diversity was assessed using the Shannon alpha diversity index. Artificial neural networks (ANN) were generated to predict pain status from the microbiome community. Mann–Whitney *U* test was used to compare continuous variables between the groups, and χ^2 test or Fisher exact test was used to compare categorical variables.

Results: Median age was 27.2 years, 70% were non-Hispanic White and mostly nulliparous. Higher rates of UTI, yeast infection, STI, other pain diagnoses, anxiety, depression, and levator ani tenderness (100% vs 0%, $P < 0.001$) were noted in VVD. Sexual function, disability, and pain catastrophizing was worse in VVD compared with controls ($P < 0.05$). The 16s rRNA sequencing analysis did not show significant differences between the Genus taxa or the Shannon diversity index between the groups. The ANN model detected a difference in microbiome community structure in VVD with a precision of 0.89, recall of 0.53, and f-score of 0.7.

Disclosure: No.

Effectiveness of multimodal physiotherapy approaches for the treatment of persistent pelvic pain in women: a systematic review

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Introduction: Multimodal physiotherapy approaches integrate various therapies and modalities with a growing evidence base in the management of persistent pain conditions. However, a comprehensive synthesis of the existing literature of these conservative therapies in women with chronic or persistent pelvic pain (PPP), unrelated to a defined pathology or known disease, is lacking. Therefore, this study aimed to assess the effectiveness of multimodal physiotherapy approaches in women with these conditions.

Methods: This study is part of an ongoing broader review investigating conservative (nonsurgical, nonpharmacological) therapies for PPP. Eight electronic databases were systematically searched for randomized-controlled trials (RCTs) targeting PPP in women. Preliminary analyses focused on pain outcomes in trials examining multimodal physiotherapy approaches as the main active treatment. Two reviewers performed study screening and data extraction. The quality of the evidence was assessed with the PEDro scale. This protocol was prospectively registered.

Results: Multimodal physiotherapy approaches were investigated in 7 trials. Among them, 2 examined interventions delivered online. In 3 RCTs, medical treatments (pharmacotherapy,

standard medical care) served as comparators, while in 4 trials, no active interventions were administered (leaflet, waitlist). Most of the studies had moderate to high methodological quality. Six of the 7 RCTs demonstrated statistically significant superior effects of multimodal physiotherapy on at least one measured pain outcome compared with the control. The remaining trial reported significant improvements following multimodal physiotherapy but did not present between-group comparisons.

Disclosure: No.

Telerehabilitation in chronic pelvic pain

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Introduction: Physical therapists use telerehabilitation as the common term for telehealth applications. Many physiotherapists worked as telehealth providers during the coronavirus pandemic and a large proportion of patients suffering from pain during sexual intercourse, also known as dyspareunia, were underestimated in this period. Following a telerehabilitation-based physical therapy (TBPT) treatment, no study thus far has examined changes reduction in pelvic pain and improvement in sexual outcomes. The objective of the study showed the efficacy of the TBPT on pain intensity and treatment satisfaction in chronic pelvic pain patients with dyspareunia.

Methods: Forty-two pelvic pain patients affected by dyspareunia aged between 18 and 50 years were included in this study. The women completed an 8-week TBPT treatment comprising sex education, self-massage, and internal and external trigger point release therapy for pelvic floor muscles. Quantitative data were collected using validated questionnaires at baseline and posttreatment. The primary outcome was pain intensity during intercourse evaluated with the numeric rating scale (0–10) and the Pelvic Pain Impact Questionnaire (PPIQ). Secondary outcomes included patient global impression of improvement (PGI-I) and sexual function (Female Sexual Function Index).

Results: Significant improvements were found from baseline to posttreatment on all quantitative outcomes, such as VAS, PPIQ, PGI-I, and FSFI ($P \leq 0.05$). The study highlighted the reduction in pain and improvement in sexual functioning perceived by participants affects patients' impressions positively.

Disclosure: No.

Barriers to pelvic floor physical therapy, a qualitative study

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Introduction: Pelvic floor physical therapy (PFPT) is a common, noninvasive, low-risk, first-line treatment for pelvic floor disorders (PFDs) often offered in conjunction with medical or surgical treatments. Compliance with this therapy has been shown to be very poor and research addressing barriers to PFPT is lacking.

Methods: This was a qualitative research study of female subjects aged 22 to 76 years who were referred to PFPT by a gynecologic subspecialist at a single academic institution between February and August 2022. A semistructured interview guide was used with topics surrounding provider counseling, prior knowledge of therapy, and factors that contributed to initiation of therapy. Interviews were transcribed and coded thematically using grounded theory.

Results: Theoretical saturation occurred at 16 interviews. Average interview length was 20 minutes. General themes included knowledge, experiential factors, and feasibility/affordability. Barriers to PFPT were time and geographic constraints, difficulty obtaining an initial appointment, and lack of awareness of the therapy. Only half of the subjects felt that they received adequate information about PFPT for their provider at the time of referral. The majority who initiated therapy described prohibitive financial factors despite insurance coverage. All subjects who initiated PFPT stated that they would recommend it to others. The most common promoting factor for those who initiated therapy was motivation for relief of symptoms and optimism about improvement.

Disclosure: No.

Pelvic health physical therapy interventions: are we in alignment with current evidence?

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Introduction: This study aims to identify whether contemporary treatment strategies used by pelvic health physical therapists (PHPT) practicing in the United States align with current evidence in managing patients with chronic pelvic pain.

Methods: A survey of PHPT through social media, professional membership, and pelvic health courses. One hundred twenty-seven practicing PHPT responded to the survey, which included questions regarding utilization of 18 interventions commonly used in pelvic rehabilitation on a Likert scale: 0 (never), 1 (rarely), 2 (sometimes), 3 (often), 4 (always).

Results: Respondent's entry-level education degree included: 82 DPT (64.6%), 26 MPT 20.4%, and bachelor 15% (19). For continuing education, 38 providers (30%) obtained advanced credentialing in pelvic health. Nineteen providers (15%) had completed more than 40 hours of pain neuroscience education. The top 3 interventions used by the responding physical therapists were pelvic anatomy education (M = 3.86, SD = 0.449), breathing techniques (M = 3.79, SD = 0.612), and muscle stretching of surrounding tissues (M = 3.46, SD = 0.815). The bottom 3 interventions were graphesthesia (M = 0.50, SD = 0.907), 2-point discrimination (M = 0.61, SD = 0.891), and dry needling (M = 0.071, SD = 1.229). Other notable results were mindfulness (M = 3.24, SD = 0.888) and pain neuroscience education (M = 2.60, SD = 1.449).

Disclosure: No.

Pelvic health physical therapists pain knowledge and confidence in managing patients with chronic pelvic pain

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Introduction: This study explores the current pain science knowledge and self-reported confidence of pelvic health physical therapists (PHPT) when managing patients with chronic pelvic pain.

Methods: A survey was collected through Qualtrics and delivered through social media, current professional membership, and pelvic health course attendees by the APTA Academy of PHPT. The survey included demographic information, the pain care confidence scale (PCCS), the revised Neuroscience of Pain Questionnaire (rNPQ), and the Pain Attitudes and Beliefs Scale for

Physiotherapists (PABS-PT). Data were compiled and analyzed for trends.

Results: The results included 136 PHPT. There was a statistically significant difference between doctor of physical therapy (DPT) degree therapists (f = 3.633, df = 130, $P = 0.029$), those reporting not having earned advanced certifications (t = −2.344, df = 134, $P = 0.021$), and those with less than 80 hours of continuing education (CE) in pelvic health (t = −2.454, df = 134, $P = 0.015$) who were less confident in managing persons with chronic pain. Pelvic health therapists who reported having more than 20 hours of pain-related CE scored significantly higher than those who did not regarding pain neuroscience knowledge (t = −2.230, df = 134, $P = 0.027$). PHPT tended towards a more psychosocial model (avg = 3.933) than the biomedical model (avg = 2.316). Greater pain knowledge score demonstrated a weak correlation with greater confidence (r = 0.283, $P = 0.004$), while lower overall knowledge correlated with a biomedical model (r = −0.405, $P = 0.001$).

Disclosure: No.

Patient characteristics associated with interest in pelvic physical therapy for management of chronic pelvic pain

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[a]*University of Michigan*

Introduction: Pelvic physical therapy (PT) is frequently recommended as part of multimodal management of chronic pelvic pain. Little is known about patient perceptions regarding nonpharmacologic strategies, such as pelvic PT.

Methods: Retrospective cross-sectional study of new patients presenting to a chronic pelvic pain referral clinic. Patients complete a detailed questionnaire before their first visit, including questions regarding interest in various treatments (indicate interest as "yes," "not sure," or "no"). Descriptive analyses were performed to compare patients according to interest in pelvic PT.

Results: Of 1,703 patients who completed questionnaires, 58.3% (n = 992) indicated interest ("yes") in pelvic PT, 21.7% indicated "not sure," and 20.0% (n = 341) indicated "no." Patients who indicated "yes" were younger ($P < 0.001$), had seen more doctors for pelvic pain ($P < 0.001$), less likely to have undergone hysterectomy ($P = 0.001$), and more likely to have tried PT ($P < 0.001$) or acupuncture ($P < 0.001$) compared with those who indicated "not sure" or "no." Specific pelvic pain symptoms (urinary, bowel, dyspareunia) and chronic overlapping pain diagnoses did not differ significantly. Patients who were interested in PT ("yes") were more likely to consider hormonal therapy, pain psychology, and neuromodulating medications for pelvic pain (all $P < 0.001$), whereas patients who were not interested in PT ("no") were more likely to be interested in surgery for pelvic pain ($P < 0.001$).

Disclosure: No.

Validation of a functional MRI method to characterize candidate mechanisms in menstrual pain

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Introduction: Menstrual pain has been linked to uterine contractions and changes in myometrial anatomy, yet a lack of standardized methods hampers accurate evaluation of these physiological processes.

Methods: In this study, we aimed to validate a noninvasive approach for characterizing uterine contractions and anatomical features by acquiring 10-minute T2-weighted sequences (3T Siemens Skyra) from 67 participants with menstrual pain and 13 pain-free controls. Five reviewers double scored the frequency and duration of sustained uterine contractions (greater than 10 seconds) and measured anterior and posterior junctional zone (JZ) and outer myometrium (OM) sizes.

Results: Participants had a median of 4 [IQR 2–6] contractions per 10 minutes with a duration of 44 [IQR 30–62] seconds. The intraclass correlation coefficient (ICC) across reviewers for contraction frequency was 0.85 [95% CI 0.81–0.89] and duration was 0.94 [95% CI 0.91–0.95]. Median JZ sizes were 6 mm [IQR 4–7], and outer myometrial zone sizes were 7 mm [IQR 5–10]. ICCs for the anterior JZ (0.86) [95% CI 0.81–0.89], posterior JZ (0.84) [95% CI 0.79–0.88], anterior OM (0.82) [95% CI 0.77–0.86], and posterior OM (0.79) [95% CI 0.72–0.92] were also high. Contraction frequency and junctional zone anatomy were correlated (r = 0.22, $P < 0.05$), suggesting interplay between these mechanisms.

Disclosure: Any of the authors act as a consultant, employee, or shareholder of an industry for: Myovant, Tremeau Pharmaceuticals, UroShape, Wolters Kluwer, Dot Laboratories, and Eximis.

Presence of endometriosis negatively impacts the pain experience in women with chronic pelvic-abdominal pain: a cross-sectional survey

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Introduction: Evidence of overlap between endometriosis and chronic pain conditions, such as fibromyalgia, irritable bowel syndrome, and interstitial cystitis/bladder pain syndrome is emerging; however, little is known regarding how pain differs based on the presence or absence of endometriosis. Our objective is to examine whether individuals with chronic pelvic–abdominal pain (CPP) experience pain differently based on the presence of endometriosis.

Methods: A cross-sectional survey conducted among US adults (≥18 years) in 2022. The survey collected pain diagnoses and symptoms including severity, impact, and interference assessed by validated pain scales. Statistical analyses included *t*-tests, χ^2 tests, and linear regression.

Results: Of 525 respondents with CPP, 25% reported having endometriosis. There were no differences in age, race/ethnicity, age when pelvic pain started, or duration of pelvic pain between women with and without endometriosis. However, women with endometriosis reported higher pain severity (+0.8, 95% CI: 0.4–1.1), pain interference (+1.1, 95% CI: 0.7–1.6), and pain impact (+0.3, 95% CI: 0.2–0.5). Endometriosis was associated with a higher number of overlapping pain conditions ($P = 0.003$), with 25% of women reporting ≥3 overlapping pain conditions compared with 12% of those without endometriosis. Women with endometriosis had a higher frequency of fibromyalgia ($P < 0.001$), chronic fatigue syndrome ($P < 0.001$), and temporomandibular disorder ($P = 0.001$). The number of overlapping pain conditions was associated with higher pain severity, interference, and impact, independently of endometriosis.

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Social and clinical aspects of pelvic pain in Turkey

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Introduction: Chronic pelvic pain (CPP) is a common medical condition with a complex treatment due to different variables that influence its clinical course. There is a growing literature discussing the effect of ethnicity and culture on pain. We aimed to investigate whether there is a considerable difference in the presentation and experience of pelvic pain in women from a different societies and cultures.

Methods: The study includes randomly selected 45 female patients who completed a comprehensive set of questions derived from International Pelvic Pain Society (IPPS), pelvic pain assessment form. Character and intensity of pain, sexual abuse and harassment, coping with pain, physical activities (exercising) and comorbidities were evaluated. The McGill pain questionnaire short form was used to evaluate pain. Sexual Abuse Items in the Questionnaire (modified) to assess patients' sexual abuse status.

Results: The mean age of the participants was 35.6 ± 7.09 years. We also found a correlation between the age, pregnancy, and intensity of pelvic pain ($P > 0.05$). There was a correlation between urinary symptoms, dyspareunia, and pain scores ($P < 0.05$). Life style, exercising, and physical activities also significantly affect the severity of pelvic pain ($P > 0.05$).

Disclosure: Any of the authors act as a consultant, employee, or shareholder of an industry for: Yeditepe University.

A multidisciplinary chronic pelvic pain service in a low resource setting: the Cape Town experience

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Introduction: There is a paucity of data to be found on chronic pelvic pain and its management in low-resource setting.

Methods: We conducted a retrospective cohort study of patients attended to at the New Somerset Hospital chronic pelvic pain clinic from 2015 up to January 2019. Information on demographics, diagnosis, management, and outcomes was obtained from the database that is updated every time we see these patients. Categorical variables were summarised using count (percentage), continuous variables depending on the distribution, will be summarised as mean (standard deviation) or median (interquartile range). Chi-square test was used to compare categorical variables, while Wilcoxon rank sum test was used to compare pain scores. We reported estimates with the 95% confidence interval. Statistical significance was set at $P < 0.05$. STATA statistical software was used.

Results: The study confirms that a dedicated chronic pelvic pain service with minimal additional resource expenditure results in a 93.9% (n = 116) diagnostic yield. Before patients being referred to this clinic, the average number of abdominal surgeries performed were 1.93 (range 0–5). A subgroup analysis for patients with endometriosis confirming an average of 2.01 (range 1–7) The second major finding of the study was the confirmation that an evidence based; structured chronic pain management program improved brief pain inventory scores and pain interference scores.

Disclosure: No.

The effect of relaxation and stretching exercises on pain and quality of life in women with primary dysmenorrhea

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Introduction: Dysmenorrhea, characterized by uncomfortable cramping, presumed to be due to the release of prostaglandins (PG) into the uterine tissue. Primary dysmenorrhea (PD) is typically seen in young adults and does not have an underlying pathology. Exercise is a recommended treatment. Although there is research on the effects of stretching exercises, there are few studies on the effect of relaxation exercises that involve the brain and body working together. Relaxation exercises may be beneficial in diminishing muscle cramps and modulating the parasympathetic nervous system. This study aimed to examine the effect of stretching and relaxation exercises on pain and quality of life in women.

Methods: This randomized study included 20 volunteers divided into the experimental group (EG) (n = 10) and control group (n = 10). Although all participants did stretching exercises 3 days a week for 4 weeks, the EG also did relaxation exercises daily. Pain thresholds of all participants were measured with an algometer before and after the intervention. Moreover, they filled visual analog scale (VAS), Menstrual Symptom Questionnaire (MSQ), and Short Form 12v2 Health Survey (SF-12v2) before and after interventions.

Results: This study showed that the pain experienced by the participants during their menstruation decreased significantly in both groups. The decrease was more pronounced in the experimental group ($P < 0.05$). MSQ scores decreased in both groups, but the experimental group had a more significant decrease ($P < 0.05$). Quality of life (QoL) assessment using the SF-12v2 revealed a statistically significant improvement in both groups ($P < 0.05$). Furthermore, we could not obtain a meaningful result from the measurements taken with the algometer device ($P > 0.05$).

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