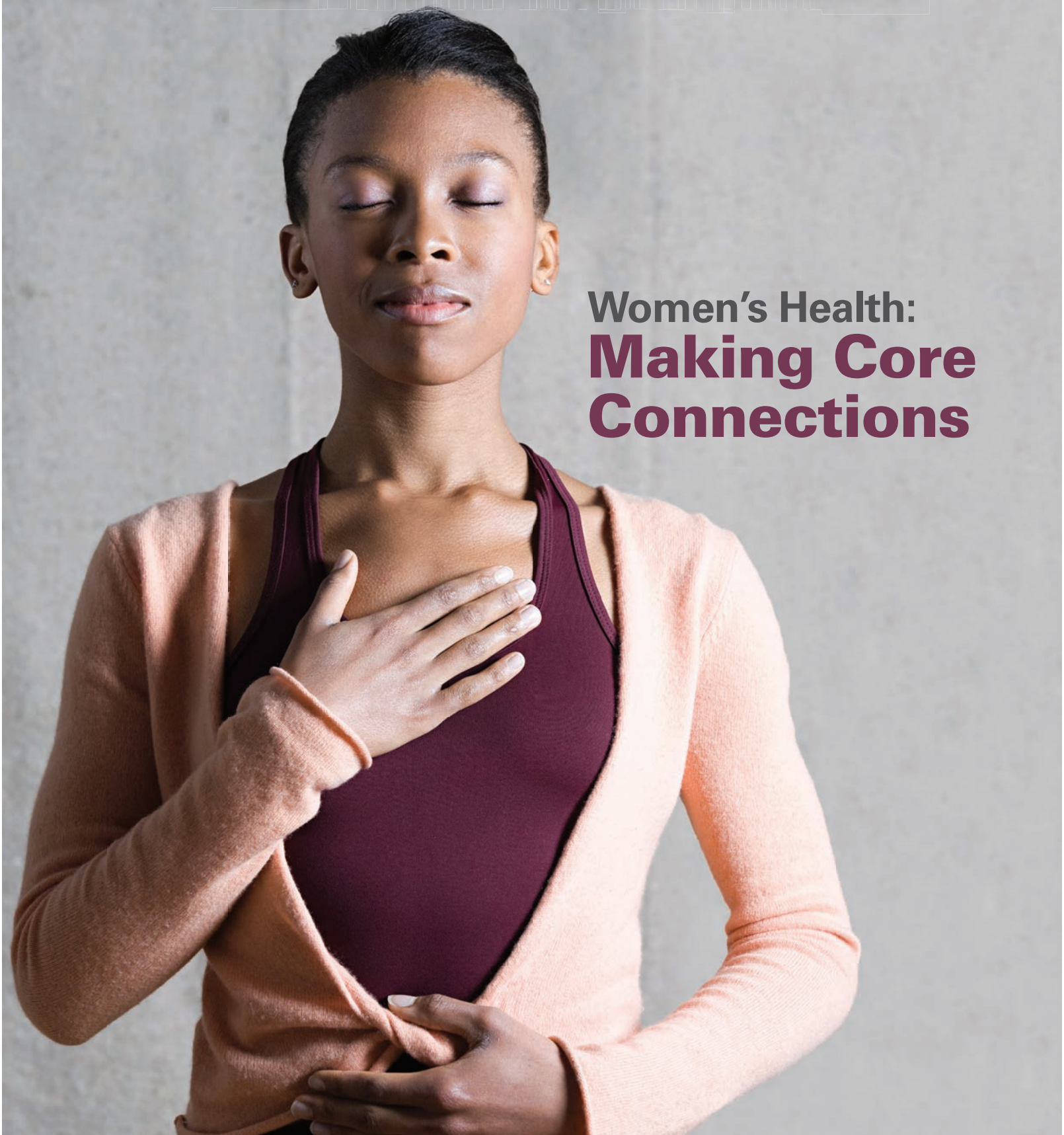
Back in the Saddle | Telehealth Today | Medicare Advantage

PT in motion

For members of the American Physical Therapy Association | May 2014



Women's Health: Making Core Connections

in this issue

May 2014, Vol 6 No 4

Stepping Up Pelvic Floor Research

Reining in Injuries

Telehealth: Ready for Prime Time?

Cover Image:
© Image Source/Corbis

 PT in Motion (ISSN 1949-3711) is published monthly 11 times a year, with a combined December/January issue, by APTA, 1111 N Fairfax St, Alexandria, VA. **SUBSCRIPTIONS:** Annual subscription, included in dues, is $15. Single copies $20 US/$25 outside the US. Individual nonmember subscription $85 US/$100 outside the US ($150 airmail); institutional subscription $105 US/$130 outside the US ($180 airmail). Bundled subscriptions that include *PT in Motion* and *Physical Therapy*: individual nonmember $179 US/$209 outside the US ($269 airmail); institutional subscription $239 US/$269 outside the US ($329 airmail); life members $75. No replacements after 3 months. Periodicals postage paid at Alexandria, VA, and additional mailing offices. **POSTMASTER:** Please send changes of address to *PT in Motion*, APTA Member Services, 1111 N Fairfax St, Alexandria, VA 22314-1488; 703/684-2782. Available online in HTML and a pdf format capable of being enlarged for the visually impaired. To request reprint permission or for general inquires contact: ptinmotionmag@apta.org.

APTA is committed to being a good steward of the environment. *PT in Motion* is printed using soy-based inks as defined by the American Soybean Association, is packaged using recyclable film, and uses Cadmus Communications, a Forestry Stewardship Council-certified supplier that recycles unused inks into reusable black ink, recycles all press plates into aluminum blocks, recycles all manufacturing waste, and purchases ink from suppliers whose manufacturing processes reduce harmful VOCs (volatile organic compounds).

Making Core Connections

Women's health PTs are using evidence-based research to take the pelvic floor out of isolation. Patients and clients are benefiting.

By Eric Ries

"In the last few years," Lori Mize, PT, DPT, WCS, notes, "there has been so much more research coming out about the neurological connection between the diaphragm and the pelvic floor muscles, and how these muscles activate during day-to-day movements."

This is of no small importance, says the founder and supervisor of Conway (Arkansas) Regional Therapy Center Specialty Clinic, a pelvic floor rehabilitation-only physical therapy facility. She cites the benefits to patients and clients, and is quick to give credit where credit's due.

"Thanks to people like Paul Hodges and Mary Massery," she says, "we are emphasizing the importance of posture and alignment and how they affect the pelvic floor. We are incorporating these functional movements and neuro-education techniques into treatment for pelvic floor weakness—not simply performing static pelvic floor strengthening exercises—and we are getting better, more functional results. We're allowing the body to do what it is designed to do, which leads to better patient outcomes."

Mize, who in 2011 became the first board-certified women's health specialist in her state, has been motivated to seek and implement physical therapy solutions for women ever since, a decade ago, a women's health physical therapist (PT) was instrumental in easing Mize's intense low back pain during the final month of her second pregnancy. "All I'd been hearing up to that point," she recalls, was, 'Well, that's what happens when you're pregnant.' I decided then and there that no woman should have to put up with that."

In her determination to take the best available evidence and run with it on behalf of her patients and clients, Mize—who also is on a committee that writes evidence-based

curricula for courses offered by APTA's Section on Women's Health—epitomizes everything that the aforementioned Mary Massery, PT, DPT, DSc, loves about the section's members and their approach to evidence-based practice.

"What I see in the Section on Women's Health as a whole is their real willingness to hear new information with a very open mind," says Massery, a researcher (publications list at www.masserypt.com) and prolific presenter and lecturer whose consultation services at 2 Chicago-area pediatric clinics focus on the interrelation of the cardiopulmonary, neuromuscular, musculoskeletal, integumentary, and gastrointestinal systems on the health and motor skills of children. "I'll offer women's health PTs ideas, coming from my perspective in cardiopulmonary physical therapy, and instead of saying, 'This can't have any relevance to us,' they ask, 'Could it apply?' and ask me to tell them more."

Massery is known in physical therapy circles for comparing the human body to a soda pop can. "Whether you puncture it at the top, the bottom, or in between—the vocal folds, the pelvic floor, or the stomach muscles—the pressure control of the entire can is


Mize


Massery


Wiebe

impaired," she observes. This is the principle on which Massery has practiced for 30 years, but, given the multiplicity of possible comorbidities and psychosocial factors in the presentation of each discrete patient, there still is not, Massery notes, "as much published evidence as we would like behind specific interventions."

"You can't research something if you haven't even thought of it yet," is what she always tells new graduates who ask her, "Is it in the research?" That's why, Massery says, "clinical research always is going to lag behind clinical practice. You have to think of it first. Then you try something—based on the best available research, what your clinical judgment is telling you, what's going in the patient's world, and what's important to him or her. You put all of that together to come up with the best solution. The upshot, she says, is that "as a patient, what you want is a PT who will say, 'I know what's published. That's pretty good, but we can do better. Where else can we take this?'"

"You want PTs to use the existing evidence as a springboard to further innovation," Massery says. "That innovation may become published research—but that day may come *much* later." In the meantime, there's the optimal care of the patient or client to consider.

The Sporting News

Indeed, when PTNow (www.ptnow.org) launched in January as APTA's 1-stop resource for evidence-based practice-related information and tools, a blog post titled "Make Evidence-Based Practice Your New Year's Resolution" shared the following definition of evidence-based practice: "the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients."[1] That sounds a lot like how Julie Wiebe, PT, MPT, BSc, describes her approach to clinical practice.

"What I've tried to do is take the literature and apply it to my patients—to build a clinical model around what I'm reading in the research," says the Los Angeles-based private practitioner. She, much like Mize, talks of having been "humbled" by pregnancy earlier in her career. "Here I was, a hotshot sports medicine PT who'd always been fit, and I was struggling to recover."

Many of her physical issues, she came to realize, were related to her inability to access her core—or "center," as she prefers to call it—in the way she had before pregnancy. A further revelation was recognizing that her "30- to 60-year-old general orthopedic clientele were demonstrating the same kinds of inability to connect with their center that I'd experienced as a new mommy."

"Back then, 11 years ago, the advice was that if you have prolapse or incontinence, you shouldn't be running or involved in fitness activities," Wiebe notes. "But my female patients refused to stop. So I needed to find strategies to help them continue. What could we do? How could we rethink this? I needed to apply sports medicine concepts to the pelvic floor."

Building on research by Paul Hodges and another Australian physiotherapist, Ruther Sapsford,[2] as well as on studies related to the diaphragm-pelvic floor relationship,[3-4] Wiebe devised a clinical approach that uses breath as the "gateway" to activate the central stability system for patients seeking help with a broad range of issues—from athletes with poor hip frontal plane control that leads to knee injuries, to balance issues, to low back and hip pain. "It addresses any issue requiring restoration of a solid foundation for efficient and effective movement and fitness," she says.

"Because the central stability system also controls continence," she says, "I've applied these ideas to adopt an integrative alternative to a Kegel program."

Wiebe's website—www.juliewiebept.com—further describes the approach, which she hopes to share via telehealth outreach with women who will not talk to a PT or physician about their pelvic floor issues. The telehealth concept is the focus of a feasibility study in which Wiebe is participating.

Pediatric Problem-Solving

Wiebe is 1 of 2 PTs who spring immediately to mind when Mary Massery names "innovators" in women's health physical therapy. The other is Dawn Sandalcidi, PT, RCMT, BCB-PMD, owner of Physical Therapy Specialists in Centennial, Colorado. She, Massery says, "was on the cutting edge in pediatric pelvic floor work at a time when there was nothing."

Indeed, Sandalcidi now lectures nationally on a pediatric dysfunctional voiding system she developed. But that recognition masks the mild panic she felt in 1994, when a urologist referred to her a child who had vesicouretal reflux—backup of urine from the bladder into the kidney. The physical therapy implications for the condition were not clear at that time, and Sandalcidi had never before treated a pediatric patient.

"At first, I had no clue what to do with her," Sandalcidi readily acknowledges. "Talk about 'evidence-based practice'—well, this is how it develops." What Sandalcidi's clinical judgment told her in that scenario was that she first needed to intensively discuss with the urologist the condition and its causes, study all the available research on the diagnosis, then "go back to basics, to 'PT 101.' I had to ask, 'How do muscles work? What's wrong with the muscle? It's not relaxing. So, how do I help kids relax that muscle in order to empty their bladders completely?"

A PT can get good results by instructing an adult to "keep your belly relaxed while you tighten your pelvic floor muscle," Sandalcidi observes, but such a request is likely to be lost on a 7-year old. "So," Sandalcidi says, "with pediatric patients who have voiding issues, I essentially take the accessory muscles out of play by the way I position the child. There are no published papers to support that," she allows, "but I'm relying on my basic knowledge as a PT. If the gluteal and adductor muscles tend to overact during a pelvic floor contraction, what position can I put the patient in that will shut those 2 muscles off while still turning on the pelvic floor muscle? For me, it was a matter of thinking that process through and developing a protocol."

But ask Sandalcidi when a research paper might be available, so that any PT can cite the hard evidence behind what she does, and her response speaks to the practicalities of publication.


Sandalcidi


Cathcart


Featherstone

"To present a valid and reliable paper for publication," she says, "you'd almost have to put needle EMGs [electromyograms] in particular muscles to show which muscles are turning on and off, and when. And I don't know how many pediatric patients you're going to be able to stick needles into. You might be able to do it with adults and apply the findings to the pediatric population. It'd be complicated. And you'd have to be in a supportive clinical environment that would allow you the time and resources to do that."

Empowering Patients

Darla Cathcart, PT, DPT, WCS, CLT, talks about how her practice of women's health physical therapy evolved along with the evidence, and the satisfaction she has felt in empowering patients to address and mitigate their own pain.

"When I came out of school in the early 2000s, I had been taught that pelvic girdle pain was diagnosed by palpation of landmarks—certain locations on the pelvic bone—or by special tests focused on palpation of landmarks," says Cathcart, who is the Section on Women's Health's director of education. "But a big shift in my thinking came with the literature review released by Vleeming et al in 2007[5] and other research that had been emerging about the poor reliability or validity of palpation for accurately assessing pelvic girdle dysfunction. I came to realize that pelvic asymmetry, or misalignment, could exist with no dysfunction, and vice versa."

That led Cathcart to incorporate tests focused on functional load transfer of the pelvis and pain provocation at the pelvic joints. "The take-home message from that," she says, "was that there was little evidence for any single treatment for pelvic girdle pain—but that, rather, the intervention that's most supported in each case is the one that's patient-specific. So, I used the information in those special tests, along with other findings and observations, to determine what each treatment plan should include."

"If a patient got relief by using her transverse abdominis muscle while rolling over in bed, or by wearing a stabilization belt while walking, just to name 2 examples," Cathcart continues, "she now had more control over her symptoms. She was empowered to do something to reduce

An Offer She Couldn't Refuse

Julie Wiebe, PT, MPT, BSc, jokes that members of the Pelvic Mafia needn't fear infringement static from organized crime because "with the kind of stuff we talk about, they're probably happy to distance themselves from us."

The Twitter group (#pelvicmafia) nevertheless gets "pretty bossy and passionate about the pelvis in 140 characters or less every day," Wiebe writes in a blog post on her website. Pelvic Mafiosi, she adds, "can be found penning blogs, contributing to forums, providing education forums, and 'representing' in their local communities with their caseloads and colleagues."

Wiebe calls the Pelvic Mafia "my own research team," describing members as "an amazing group of PTs and physios worldwide who practice or are interested in women's health, are always looking at the research journals, and are posting links to what they've found."

When it comes to finding the best evidence for what they do, count Darla Cathcart, PT, DPT, WCS, CLT, among women's health PTs who deem PTNow (www.ptnow.org) a "great," if developing, resource. The site's ArticleSearch feature gives APTA members entrée to journals and other resources relevant to clinical practice, including full-text access to research and articles from more than 4,500 clinical and academic publications. "I'm excited to see how it will continue to grow," she says.

APTA's Section on Women's Health offers a wealth of research-related materials, including the *Journal of Women's Health Physical Therapy*; information on research grants, funding, and presentations; functional outcome measures research resources; "research in action" videos and news; and opportunities to serve on research committees.

Women's health PTs keep in touch with the research and each other via various social media, including Twitter, e-mail circles, and the section's Facebook page.

Dawn Sandalcidi, PT, PCMT, BCB-PMD, scours *Neurology and Urodynamics*, the journal of the International Continence Society (www.ics.org), and is a member of the International Children's Continence Society (www.i-c-c-s.org), which publishes a quarterly literature review. She regularly visits the website of the *Journal of Urology* (www.jurology.com). She also subscribes to UpToDate (www.uptodate.com), an online literature-search service.

Wendy Featherstone, PT, DPT, president of the Section on Women's Health, works closely with a gynecology fellowship group at the University of Rochester and brings a physical therapy perspective to its weekly journal club. She finds it "really helpful," she says, to "gain insights into their thinking and consider shifts in my mindset."

her pain without having to wait around for me."

Cathcart's message to patients was that their pain was related to insufficient muscle control and was fixable with retraining—and, crucially, that it did not mean their pelvis was out of alignment, a description that "can make patients feel as if they're hopelessly broken."

Cathcart now is a clinical instructor in the Department of Physical Therapy at the University of Central Arkansas. But in 2012 she was working at a women's health practice in Shreveport, Louisiana, when she marshaled the existing evidence and her clinical reasoning skills to help Wendy Leaumont, who had felt "broken" in a different sense—and very nearly hopeless.

Leaumont had spent more than 10 years dealing—without appreciable relief despite 2 surgeries, a string of medical consultations, an array of prescription medications, and previous physical therapy that centered on passive stretching—with vaginismus. The condition is defined as spasmodic contraction of the vagina in response to physical contact or pressure. What it meant was that she could not have sex without experiencing intense pain.

Influenced by the Neuro Orthopaedic Institute's (www.NOIgroup.com) research on phantom limb pain and the interplay of the brain and psychosocial context in pain development, Cathcart adapted various aspects of NOI's finding to the problem of vaginismus. Her approach involved talking with patients about their fear and anxiety, assuring them that some level of discomfort is safe and can be overcome, suggesting sexual positioning to reduce pain and assert control over it, using graded exposure to dilators, and coaching patients in breathing techniques.

"It basically was me using the NOI group's research and modifying and applying it to pelvic pain rehabilitation," Cathcart says. "In each case, under this scenario, the patient's therapy progression is self-paced. I repeat key points in the education and pain science process, and encourage the patient at each step along the way."

For Leaumont, the results were transformative. "I started to see Darla in the summer, and by the end of the year I could have sex without pain. It completely changed my life. I'm so thankful I found her," she says.

Cathcart acknowledges that the evidence of her approach's success lies thus

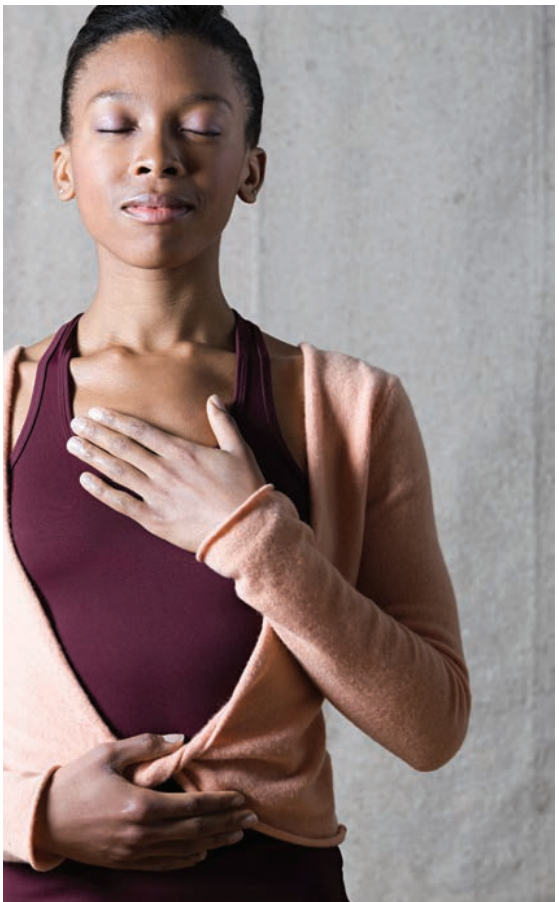
far in the experiences and gratitude of patients such as Leaumont, not in peer-reviewed research journals. She hopes to play a role in changing that.

"I'd love, at some point, to perform randomized controlled trials that would compare contract-relax exercises and graded-exposure dilator progression with some of the traditional passive techniques that have been used with patients with vaginismus," Cathcart says.

Pain, Explained

Among the researchers whose work is spotlighted on the NOI website are Australian physiotherapists David Butler and Lorimer Moseley, whose 2003 book *Explain Pain* examines the biologic base to psychological factors—thoughts, attitudes, perceptions, and superstitions—that influence pain. It argues that altering the "threat value" of an injury, procedure, or pain state improves coping and enhances healing.

Such research has altered Lori Mize's approach with patients and clients.



"It has changed my language in the history taking and education portion of the evaluation," she says. "It has changed how I describe what is happening in the pain response, and it has changed the perception patients have of their pain. I find that even slightly changing the approach can produce significant changes in patient outcomes."

She offers some examples.

"When patients present with pain following 'cesarean section,' I call it their 'cesarean birth,'" Mize says. "You 'section' an apple. That word has a hard, invasive connotation. The message I'm trying to convey to my patients is acceptance of their birth experience, even though it may not have been what they desired, and confidence that they have control over what they are doing for their body now."

Per the book title, Mize "explains pain" to her patients by "telling them that their brain signals pain as a warning when it perceives danger, not just when tissue is damaged." When patients understand that pain often is a protective cue, she says, "it eases the threat and encourages them to exert control over their perceptions."

"A Ways to Go"

Wendy Featherstone, PT, DPT, longtime president of the Section on Women's Health and a private practitioner in Rochester, New York, summarizes the state of the research and the section's response to the challenges.

"There's now a body of research on incontinence, but in randomized controlled trials the protocol often looks at the pelvic floor as an isolated entity without considering its connectedness to the core," she says. "Women's health PTs seek to address this by individualizing treatment. Addressing pain isn't as simple as, say, treating a muscular imbalance. You must factor in changes in the nervous system that occur in chronic pain states. There's a ways to go," Featherstone concludes, "in terms of applying the science to evidence-based research."

Accordingly, "The section has sponsored research through grants, as well as an endowment to the Foundation for Physical Therapy," she notes. "We support members' involvement in the development of clinical practice guidelines in concert with APTA. Our courses—listed at www.womenshealthapta.org—and conference programming support the use of evidence-based practice in treatment of issues related to the pelvic floor."

Massery appreciates those efforts, and says she'll "do anything" for the section.

"The Women's Health group is *extremely* receptive to new ideas," she says. "You can just see their wheels turning. Theirs is a culture of 'How can we do better? What other information do we need for our patients that we haven't thought of yet, that will improve our practice and their outcomes?' They look at the evidence, they're eager to learn, they innovate. That makes them really fun to work with." PT

Eric Ries *is associate editor. He can be reached at ericries@apta.org.*

Resources

1. Sackett DL, Rosenberg WMC, Muir Gray JA, et al. Evidence-based medicine: what it is and isn't. *BMJ.* 1996;312:71.
2. Sapsford RR, Hodges PW. Contraction of the pelvic floor muscles during abdominal maneuvers. *Arch Phys Med Rehabil.* 2001;82(8):1081-1088.
3. Hodges PW, Gandevia SC. Changes in intra-abdominal pressure during postural and respiratory activation of the human diaphragm. *J Applied Physiol.* 2000;89:967-976.
4. Talasz H, Kremser C, Kofler M, et al. Phase-locked parallel movement of diaphragm and pelvic floor during breathing and coughing—a dynamic MRI investigation in healthy females. *Int Urogynecol J.* 2011;22(1):61-68.
5. Vleeming A, Albert HB, Ostgaard HC, et al. European guidelines for the diagnosis and treatment of pelvic girdle pain. *Eur Spine J.* 2008;17(6):794-819.