PELVICON

Symposium

SPECIAL TOPIC || VULVODYNIA

Live Online Virtual Conference
July 13, 2024

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PELVICON Symposium

SPECIAL TOPIC || VULVODYNIA

Jessica Reale
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Co-founders of
PelviCon and your Symposium Hosts

Saturday. 13th of July, 2024

9:00AM - 6:30PM EST

100% ONLINE

Live at Virtual Conference Platform

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THE SPEAKER LINEUP

Jill Krapf
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Carolyn Vandyken
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Stephanie Prendergast
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@saprendergast

Jessica Drummond
DCN, CNS, PT, NBC-HWC
@jessrdrummond

Welcome & Agenda

We are thrilled to have you join the first-ever multidisciplinary online symposium on Vulvodynia, brought to you by PelviCon!

We hope this increases your confidence in treating vulvodynia and results in better patient outcomes.

Would love to see you at an in-person PelviCon event in the future!

9am EST - Nicole and Jessica Introduction
9:20am - Jill Krapf: Medical Management of Vulvodynia
10:15am - Alex Milspaw: Psychological Considerations for Vulvodynia
11am - Jill Krapf and Alex Milspaw Q&A
11:30am - Ashley Winter: Hormonal Considerations for Vulvodynia
12:15pm - Jessica Drummond: Optimizing Vulvar Health
1:00pm - Ashley and Jessica Q&A
1:15pm - LUNCH
2:15pm - Stephanie Prendergast: Vulvodynia: Differential Diagnosis of Nerve Involvement
3:00pm - Carolyn Vandyken: Pain Science: A Panacea or Philosophy?
3:45pm - Stephanie and Carolyn Q&A
4:15pm - Stephanie Buehler: Sexuality Counseling Approaches for Patients with Vulvodynia
5:15pm - Nicole and Jessica: Practical Considerations and Treatment for the Pelvic Rehab Provider
6:15pm - Wrap-Up and Close

In health,
Nicole & Jessica

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Stay in Touch!

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Medical Management of Vulvodynia

Jill Krapf MD

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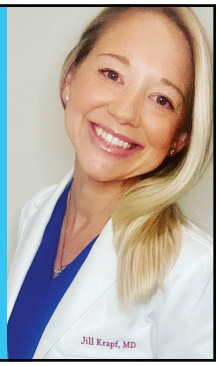

Jill Krapf MD MEd FACOG MSCP IF

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About Me

- Board-certified Obstetrician Gynecologist specializing in female sexual pain disorders at The Center for Vulvovaginal Disorders Florida in Tampa.
- Fellow of the International Society for the Study of Women's Sexual Health (ISSWSH) and the International Society for Vulvovaginal Disorders (ISSVD), serving as Chair of the Social Media Committee for ISSWSH.
- Co-author of the book When Sex Hurts: Understanding and Healing Pelvic Pain.
- Active in research on vulvodynia and vulvar lichen sclerosus.
- Associate Editor for the medical journal Sexual Medicine Online Access, as well as for the textbook Female Sexual Pain Disorders, 2nd Edition.

What IS vulvodynia?

B. Vulvodynia—vulvar pain of at least 3 months' duration, without clear identifiable cause, which may have potential associated factors.

The following are the descriptors:

- Localized (e.g., vestibulodynia, clitorodynia) or generalized or mixed (localized and generalized)
- Provoked (e.g., insertional, contact) or spontaneous or mixed (provoked and spontaneous)
- Onset (primary or secondary)
- Temporal pattern (intermittent, persistent, constant, immediate, delayed)

"Women may have both a specific disorder (e.g., lichen sclerosus) and vulvodynia.

The vulva hurts…

It's been lasting for more than a few months…

Everything looks normal…

No one why it hurts…

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How to THINK about chronic vulvar pain:

- **Specific disorder** (things that are researched and accepted)
  - Infectious: candidiasis, HSV, STIs
  - Inflammatory: LS, LP
  - Neurologic: ??
  - Hormonal: VVA, atrophic vaginitis
  - Muscular: ??
- **Vulvodynia** (things that are *not yet* adequately researched)
  - Infectious: aerobic vaginitis, ?DIV, ?CV
  - Inflammatory: LS, LP, PCV, MCAS
  - Neurologic: PN, neuroproliferative PVD
  - Hormonal: HAVD→GSM, GSL, DIV
  - Muscular: overactive/hypertonic PFD

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Vulvodynia: 2015 Terminology and Classification

Bornstein et al. Journal

TABLE 3. 2015 Consensus Terminology and Classification of Persistent Vulvar Pain and Vulvodynia

A. Vulvar pain caused by a specific disorder*
- Infectious (e.g., recurrent candidiasis, herpes)
- Inflammatory (e.g., lichen sclerosus, lichen planus, immunobullous disorders)
- Neoplastic (e.g., Paget disease, squamous cell carcinoma)
- Neurologic (e.g., postherpetic neuralgia, nerve compression, or injury, neuroma)
- Trauma (e.g., female genital cutting, obstetrical)
- Iatrogenic (e.g., postoperative, chemotherapy, radiation)
- Hormonal deficiencies (e.g., genitourinary syndrome of menopause [vulvovaginal atrophy], lactational amenorrhea)

B. Vulvodynia—vulvar pain of at least 3 months' duration, without clear identifiable cause, which may have potential associated factors.

The following are the descriptors:
- Localized (e.g., vestibulodynia, clitorodynia) or generalized or mixed (localized and generalized)
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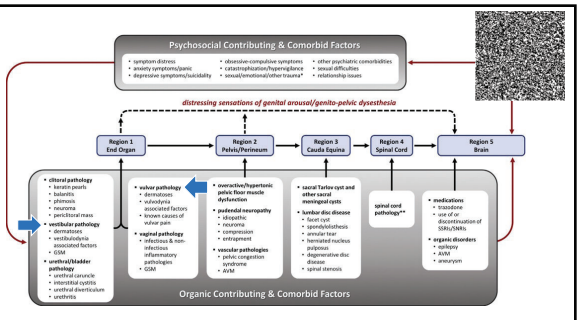
- Onset (primary or secondary)
- Temporal pattern (intermittent, persistent, constant, immediate, delayed)

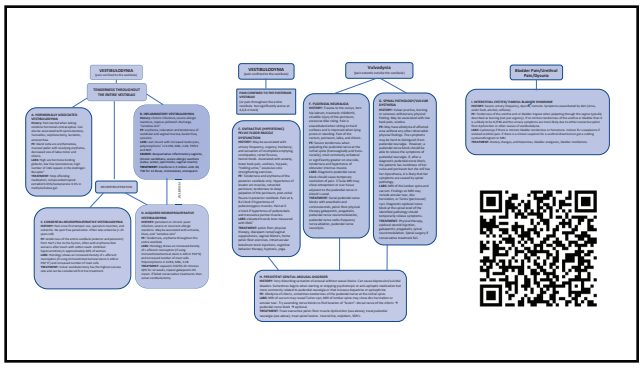
"Women may have both a specific disorder (e.g., lichen sclerosus) and vulvodynia.

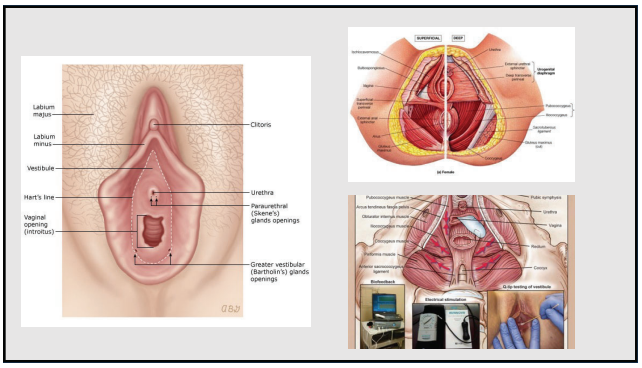
Vulvodynia

Appendix: potential factors associated with vulvodynia*
- Comorbidities and other pain syndromes (eg, painful bladder syndrome, fibromyalgia, irritable bowel syndrome, temporomandibular disorder; level of evidence 2)
- Genetics (level of evidence 2)
- Hormonal factors (eg, pharmacologically induced; level of evidence 2)
- Inflammation (level of evidence 2)
- Musculoskeletal (eg, pelvic muscle overactivity, myofascial, biomechanical; level of evidence 2)
- Neurologic mechanisms
  - Central (spine, brain; level of evidence 2)
  - Peripheral: neuroproliferation (level of evidence 2)
- Psychosocial factors (eg, mood, interpersonal, coping, role, sexual function; level of evidence 2)
- Structural defects (eg, perineal descent; level of evidence 3)

* The factors are ranked by alphabetical order.





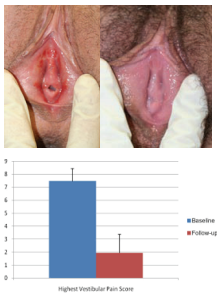


Treatment depends upon Diagnosis

- Hormonally-mediated PVD
- Inflammatory
  - Auto-immune: Lichen Sclerosus, Lichen Planus
  - Hypersensitivity: contact dermatitis, LSC, MCAS
  - Infectious: bacterial, fungal, viral
- Neuropathic
  - PVD: primary or secondary neuroproliferative vestibulodynia
  - Region 1 and 2 (possibly 3-4) → Pudendal Neuralgia/Spinal Radiculopathy
- Overactive PFD

HAVD

- Estradiol/Testosterone topical applied to the vulvar vestibule
- Vaginal DHEA (prasterone), which converts to estrogens and androgens in the vagina and filters to the vestibule



LJ, Goldstein AT. The treatment of vestibulodynia with topical estradiol and testosterone. Sexual medicine. 2013 Aug 1;1(1):30-3.

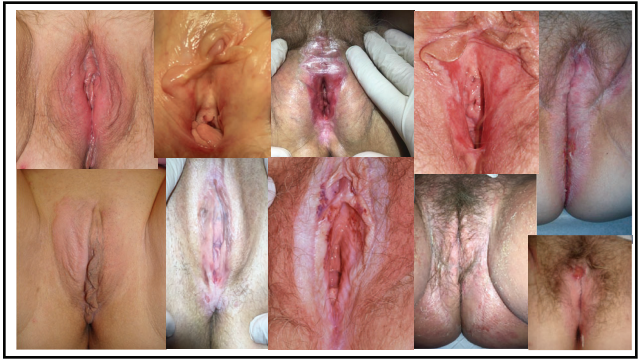
INFLAMMATORY

"Internal"- Autoimmune

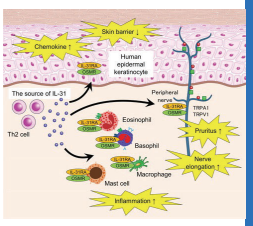
- Lichen Sclerosus (LS)
- Lichen Planus (LP)
- Plasma Cell Vulvitis (PCV)
- Mast Cell Activation Syndrome (MCAS)

"External" - Exposure

- Contact dermatitis
- Lichen Simplex Chronicus (LSC)
- Vulvar Intraepithelial Neoplasia type I (VIN I)
- Vulvar Candidiasis
- Cellulitis



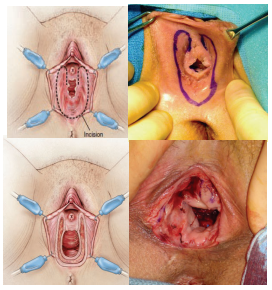
Inflammatory

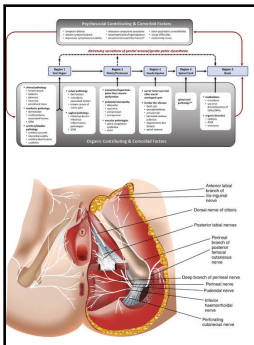


- Steroid
- Antibiotic/Antifungal/Antiviral
- Anti-histamines
- Mast cell stabilizers
- Imiquimod (VIN I)

Neuropathic-NPVD

- Diagnosed with H/P and Vulvar Anesthesia Test (VAT)
- Treatment options:
  - Lidocaine
  - Topical gabapentin
  - Topical capsaicin
  - Vulvar vestibulectomy
- Confirmed with staining of vestibulectomy specimen





Neuropathic-Genitopelvic Neuralgias

- Vulvar Dysthesia/Pudendal Neuralgia/Spinal Radiculopathy
  - Behavioral measures
  - Pelvic Floor Physical Therapy
  - Nerve Blocks (dorsal clitoral, pudendal, epidural, ganglion impar)
  - Systemic Medications:
    - Amitriptyline/Nortriptyline
    - Gabapentin/Pregabalin
    - Duloxetine
  - Neurostimulation, cryotherapy, ablation, pudendal nerve entrapment and/or spinal surgery

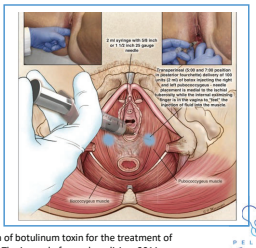
Overactive PFD

- Pelvic Floor Physical Therapy
- Medical Adjuncts:
  - Muscle relaxant suppositories
  - Levator ani/superficial perineal BoNT injections
- Address functional Pudendal Neuralgia

Levator ani and superficial perineal BoNT injections

Botulinum toxin

- Inhibits release of acetylchohline from presynaptic region of neuromuscular junction
- 2-3 series of 50-100u Botox/Jeauvea (150-300u Dysport) spaced 8-12 weeks
- Concurrent pelvic floor physiotherapy



Goldstein AT, Burrows LJ, Kellogg-Spadt S. Intralevator injection of botulinum toxin for the treatment of hypertonic pelvic floor muscle dysfunction and vestibulodynia. The journal of sexual medicine. 2011 May;8(5):1287-90.

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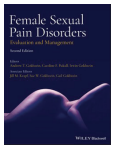
QUESTION & ANSWER



jillkrapfmd

www.jillkrapfmd.com

Psychological Considerations for Vulvodynia

Alexandra T. Milspaw, PhD, MEd, LPC, CST, BCH

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Financial Disclosures

I have no financial disclosures.

Dr. Alex Milspaw

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About Me

- Licensed Professional Counselor in PA
- AASECT-Certified Sex Therapist
- Board Certified Hypnotist
- Executive Board Member & Faculty for International Pelvic Pain Society since 2018
- Private practice since 2009
- International Researcher, Speaker & Educator
- Author of "Hello, Down There: A Guide to Healing Pelvic and Sexual Pain" © 2022

Learning Objectives

- Define psychoneuroimmunology and the role trauma plays in the homeostasis of our bodies
- Describe at least 3 interactive exercises that can be utilized to educate the patient and provider on what needs addressed within the patient's nervous system history to achieve optimal treatment results

What is an ecosystem?

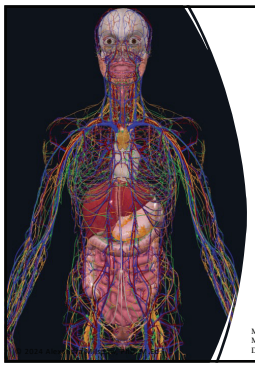
- "a complex network or interconnected system"
- A healthy ecosystem = a balanced ecosystem = homeostasis = *everything and everyone working together in harmony for the benefit of all involved*

Psychoneuroimmunology

- "The fundamental idea is that anything which produces prolonged stress or other strong emotions leads to biochemical changes, that, by affecting systems such as the immune or cardiovascular system, can produce disease; and, conversely, anything that relieves the stress can help reverse those effects, restore homeostatic balance, and, perhaps, improve health."

AKA: "IT'S ALL CONNECTED!"

Kelly, E. F., Kelly, E. W., Crabtree, A., Gauld, A., Grosso, M., & Greyson, B. (2007). Irreducible mind: Toward a psychology for the 21st century.

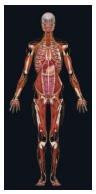


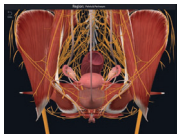
The Gut-Brain Axis

- Inflammation in the gut = systemic inflammation of mucosal layers
  - Blood Brain Barrier
  - Vaginal lining
  - Urethral lining
  - Sinuses and eyes
  - Skin and peripheral nerve sensitivity
  - CNS & ANS upregulation

Morreale, C., Bresesti, I., Bosi A., Baj, A., Gianoni, C., Agosti, M., Salvatore, S. Microbiota and Pain: Save your gut feelings. *Cells*. 2022 March 11;11(6):971. Doi: 10.3390/cells11060971.

The Ecosystem of Sex and Sexual (Dys)Function





versus

It's important for both provider and patient to understand and explore all maps of the subjective experience.

A map for education and exploration

4-D NETWORK

Healing Body, Mind, Heart, & Spirit

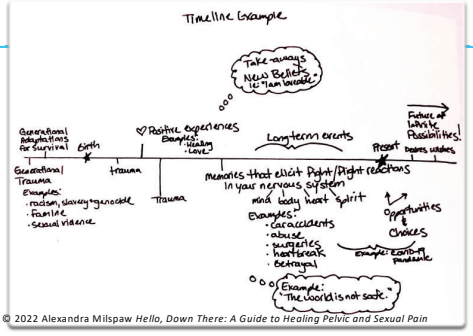
"Guided Meditations for 4-D Healing" Audio album © Alexandra Milspaw, PhD

Trauma

- "Trauma is not what happens to us, it's how our body responds to it" – Gabor Mate
- Trauma is not only stored in the brain, but in the cells of our body including blood, nerve cells, muscle and tissue cells = trauma can "wake up" when that part of the body is activated, stimulated, manipulated

The history of their nervous system

- It all matters, but it doesn't all need addressed
- Recalling actual memories is NOT necessary to neutralize it or validate it. If the body is reacting, that's all that matters.
- Our nervous system's history includes:
  - generational and ancestral trauma (genetic memory/training)
  - Prenatal and neonatal trauma
  - Secondary trauma
  - "almost" trauma – having something "almost happen" can be just as traumatic as having it *actually* happen
  - Adverse Childhood Events (ACEs)
  - Prolonged exposure to stress, i.e. COVID-19 Pandemic, global warming conditions and natural disasters/threats

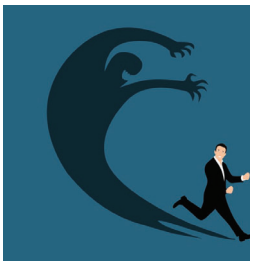


Hardware vs. Software

- Physiological changes to the brain's hardware within 10 days of persistent pain or stress
- Software changes when the hardware changes
- The "Brain's Reserve" – bathtub metaphor
- We need to help them turn off their "faucet of fear"

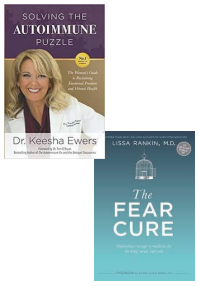
Software changes:

- Altered perception
- nterrupts executive functions
- Decreased focus/concentration
- Decreased inhibition
- Disrupted sleep patterns
- Working memory disruption
- Short- & long-term memory loss
- Mood fluctuation
- Anxiety & depression
- ANS dysregulation, including GI dysfunction, HRV, and temperature regulation
- Decreased libido



Long-term effects of amplified Autonomic Nervous System

- Chronic Pain
- Autoimmune Diseases
- Increased Systemic Inflammatory Response
- Post-Traumatic Stress Disorder (PTSD)
- Fibromyalgia
- Chronic GI disorders
- Cancer and benign tumors



How pelvic and sexual pain is the *same*

- It's all part of the same nervous system
- It's guided by the same brain
- It creates a stress response
- It changes the brain in the same way as any other stress and pain
- It heals in the same way and needs the same things to heal

How pelvic and sexual pain is *different*

- It's at the core of what we do, how we move and who we are
- It's a part of the body we can't ever fully rest. We're always using it!
- It's in a private area – an area we learn not to talk about
- It's in an area of the body that physicians and other healthcare providers tend to feel "allergic" to, leading them to avoid the conversation or tell you it's out of their scope
- It's a main area of where our body holds stress (GI system especially)
- It affects our everyday life – toileting, relationships, hobbies, movement, intimacy, daily functioning

We need to help them practice the skill of interoception.

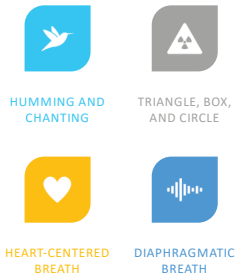
Mindfulness can be too overwhelming or overstimulating for severe pain patients.

1st step: build confidence in a skill that helps them feel safe (calms their nervous system).

Exercises to help turn off the faucet of fear

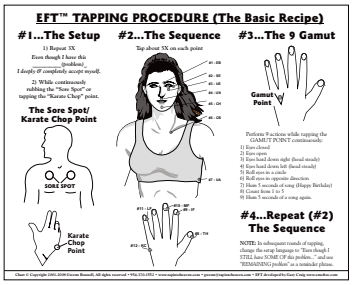
- Bilateral stimulation
  - Dr. Jeffrey Thompson, www.scientificsounds.com
- Nasal breath work
  - More oxygen receptors in the back of the nasal cavity
- Meridian tapping
  - www.thetappingsolution.com & www.eftuniverse.com
- Brainspotting fear-based images
  - www.dralexmilspaw.com/books/hellodownthere/exercises
- Visualization and utilization of metaphors
  - Know your patient – what do they know? Use a genre/memory they're already familiar with

Utilize the breath to create homeostasis within the CNS & ANS and balance heart-rate variability (HRV)



Emotional Freedom Techniques (EFT)

- Based on EMDR and Acupressure research
- Creates balance within brain's hemispheric activity
- Modulates both subjective appraisal and neural processing.
- Turns off 72 different gene expressions related to trauma, inflammation, disease
- 300+ evidence-based, peer-reviewed trials around the world
- *Leading treatment protocol for PTSD and chronic pain worldwide*



BMC Neuroscience https://doiorg/10.1186/212868-020-00597

Language, Metaphors and the Subconscious Mind

- You can't command or demand anything from the body – you "***invite" and "allow"***
- Visualization has been used for decades in sports psychology for athletic performance – **imagine what success feels like**
- Patients can get stuck on the "how" instead of the "what"
- Metaphors are the back door to the subconscious – a way around the rational mind
  - **co-create a metaphor based on a theme that is already familiar with the patient = there's already a file folder in the brain for the concept**

Sex, pain, and disability:

how to have non-medicalized sex therapy for sexual "dysfunction"

- Sexual dysfunctions are symptoms of something else going on
- Treatments *must extend beyond the physical quadrant of* hormones, surgeries, and injections
- Patients need to recognize that sex is much more than the functioning of their parts…*and if they don't acknowledge this, medical treatments may not be sustainable, let alone effective*

Experiential Learning

- Fear-based learning can ONLY BE UNLEARNED EXPERIENTIALLY
- The more you incorporate ANS regulation techniques during session, the more likely they will do the same at home.
- Partner inclusion starts at the beginning*
- No current partner? Encourage the use of imagination so the brain can get used to exploring variables needed/wanted to feel comfortable, safe, relaxed, etc.

*Dewitte, M., & Meulders, A. (2023). Fear learning in genital pain: Toward a biopsychosocial, ecologically valid research and treatment model. *Journal of Sex Research*. Advance online publication. https://doi.org/10.1080/00224499.2022.2164242

Take-aways → *"Feel it to heal it!"*

- Utilize bilateral stimulation music during treatment sessions and encourage use during home practice
- Encourage curious, compassionate dialogue with the body – use the 4-D Wheel as a "map" to access all perspectives and "voices"
- Co-create metaphorical images to demonstrate the patient's goal – focus on the "what" of the goal, not "how" the body is going to get there

Library of Resources

- www.dralexmilspaw.com/books/hellodownthere/exercises

Thank you!

I want to hear from you!

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IG #dralexmilspaw
Youtube.com/alexmilspaw

Virtual Courses Coming Soon!

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Vulvodynia: Hormonal considerations

Ashley Winter MD

PELVICON Symposium

Disclosures

- Consultant for Marius pharmaceuticals
- Contractor for Midi Health
- Director of FemmeTech at Firmtech

About Me- Urologist

residency

fellowship

attending- 5 years

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chief medical officer

Odela

now

MIDI HEALTH

FIRMTECH

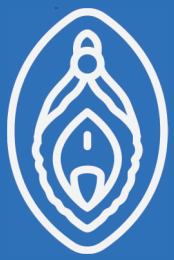
fem tech lab

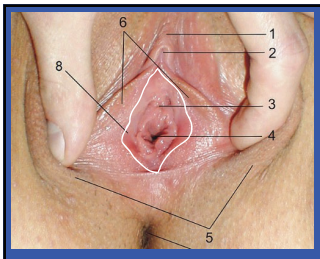
PRIVATE

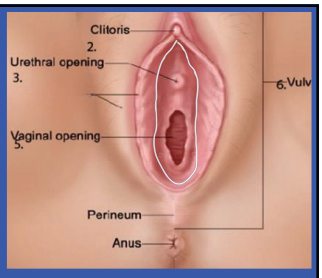
@ashleygwinter

3 take aways

- The vulva is a hormone sensitive organ (estrogens and androgens)
- Multiple life factors or medications can cause a low hormone state that contributes to hormone-mediated vulvar pain
- Treat by addressing root cause and adding topical hormone therapy when appropriate

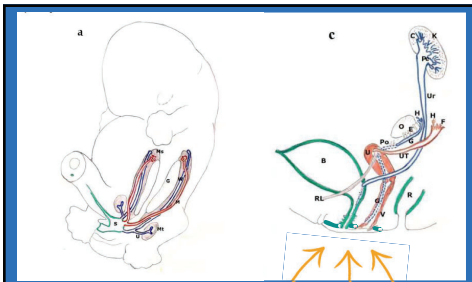






Vulvar vestibule!

- Lateral: Hart's line
- Medial: hymen
- part of the reason inflammation in this region can be perceived as urethral or bladder pain.



Green = endoderm derived tissue.

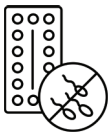
Pain in the vulvar vestibule that is caused by a low hormone state is called hormone-mediated vestibulodynia

How does a low hormone state causes vulvar pain?

- Reduction in pain threshold
- Increased inflammation
  - estrogen is anti-inflammatory!
- Reduced lubrication
  - glands in the vulva are androgen-dependent
- Direct changes to epithelium (thinning)

When can a low-hormone state occur?

- Menopause
  - subset of genitourinary syndrome of menopause
- Hormonal contraceptives
  - combined oral contraceptives most common offenders
- Lactation
- Hormonal treatments for acne
  - ex: spironolactone
- Breast cancer treatments
  - ex: aromatase inhibitors, tamoxifen



Testosterone

There is a lot of misinformation regarding sex hormones.
Primarily that women have estrogen and men have testosterone.

www.labcorp.com/tests/004515/estradiol

- Adult male: 7.6–42.6 pg/mL
- Adult female:
  - Follicular: 12.5–166.0 pg/mL
  - Ovulation: 85.8–498.0 pg/mL
  - Luteal: 43.8–211.0 pg/mL
  - Postmenopausal: <6.0–54.7 pg/mL
- Pregnancy: First trimester: 215.0 to >4300.0 pg/mL
- Children (1 to 10 years):
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Note: The results displayed above were obtained with the Roche ECLIA

www.labcorp.com/tests/004226/testosterone-total

See table.

Age	Male	Female
	Testosterone (ng/dL)	Testosterone (ng/dL)
16 to 17 y	150–785	12–71
18 to 19 y	150–785	13–71
20 to 30 y	264–916	13–71
31 to 40 y	264–916	8–60
41 to 60 y	264–916	4–60
61 to 80 y	264–916	3–67
>80 y	264–916	2–45

Adult male reference interval is based on a population of healthy nonobese males (BMI <30) between 19 and 39 years old.[2]

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E2: 100**pg/mL**
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E2: 100**pg/mL**
T: 30**ng/dL**
UNIT conversion!
E2: 100**pg/mL**
T: 300**pg/mL**

www.labcorp.com/tests/004226/testosterone-total

Bee table.

Age:	Male: Testosterone (ng/dL)	Female: Testosterone (ng/dL)
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Coelingh Bennink et al. Breast Cancer Research (2023) 25:60 Page 3

PMID: 37254150

The best diagram of hormones throughout the menstrual cycle I have ever seen!!!

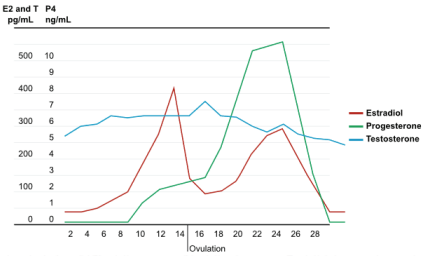
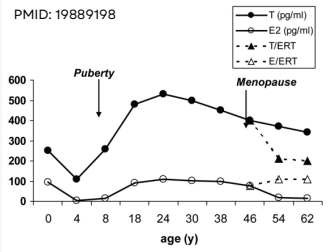


Fig. 1 Mean plasma levels of estradiol (E2 pg/mL), progesterone (P4 ng/mL), and testosterone (T pg/mL) during a normal menstrual cycle of 28 days.[14, 77]

Menopause

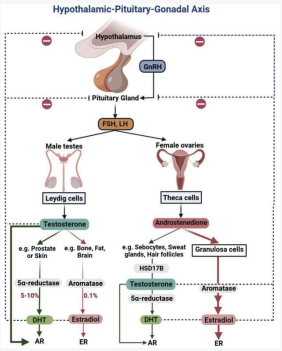
- Average female has more T than E in her body throughout the lifespan.
- Estrogen AND testosterone are BOTH important in everyone, regardless of gender.

PMID: 19889198



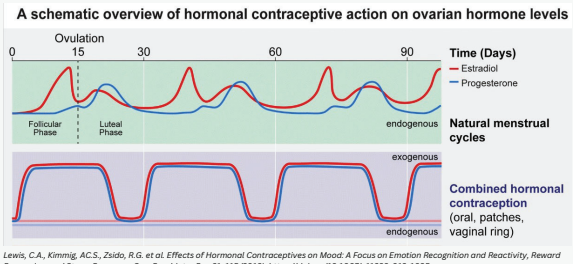
Average estradiol (E2) and testosterone (T) levels across the female lifespan. Y-axis, level in picograms; X-axis, age in years. Dashed lines predict changes in T and E2 hormone levels resulting from estrogen replacement therapy (ERT) beginning at menopause.

The feedback between the brain and ovaries is important for understanding HOW certain medications can cause hormone mediated vulvar pain.



Obsessed

CONTRACEPTIVES



Lewis, C.A., Kimmig, A.C.S., Zsido, R.G. et al. Effects of Hormonal Contraceptives on Mood: A Focus on Emotion Recognition and Reactivity, Reward Processing, and Stress Response. Curr Psychiatry Rep 21, 115 (2019). https://doi.org/10.1007/s11920-019-1095-z
CC 4.0

COMBINED ORAL CONTRACEPTIVES

Combined oral contraceptives:

- Suppress endogenous **estrogen**
  - Ultra low dose - most prominent effects re: estrogen deficiency
- Lower **total testosterone.**
- Increase **SHBG** --> further reduction in bioavailable testosterone
- Some progestins have a FURTHER anti-androgen effect! (ex:

Total T

Figure 2

Meta-analysis of 39 studies on the effect of COCs on total T concentrations. COC, combined oral contraceptive; T, testosterone.

PMID: 24082040

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SHBG

Figure 4

Meta-analysis of 39 studies on the effect of COCs on SHBG concentrations. COC, combined oral contraceptive; SHBG, sex hormone-binding globulin.

PMID: 24082040

COMBINED ORAL CONTRACEPTIVES

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Free testosterone

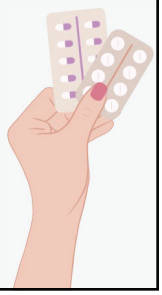
Figure 7

Subgroup analysis for the effect of type of progestin on free T concentrations in the meta-analysis on free T (log scale; relative change). T, testosterone.

PMID: 24082040

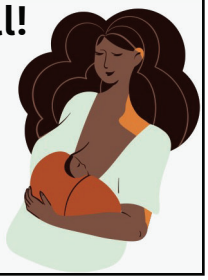
COMBINED ORAL CONTRACEPTIVES

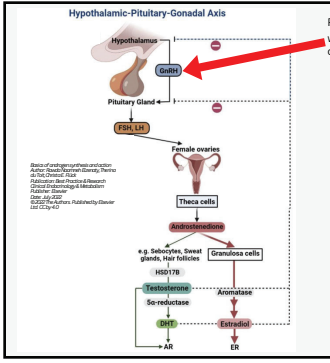
These symptoms do NOT happen in everyone, due to wide range in personal biology (ex: sensitivity of androgen receptors)



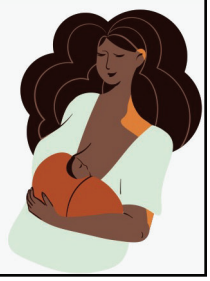
Breastfeeding causes low estrogen state as well!

Causes similar genitourinary AND overall symptoms to menopause.





Prolactin is produced by the pituitary gland in someone who is breastfeeding. Prolactin has negative feedback on GnRH, which leads to less estrogen production.



Sexual Medicine Open Access

ORIGINAL RESEARCH—WOMEN'S SEXUAL HEALTH

The Treatment of Vestibulodynia with Topical Estradiol and Testosterone

Lara J. Burrows, MD, MSc and Andrew T. Goldstein, MD

Obstetrics and Gynecology, The Center for Vulvovaginal Disorders, Washington, DC, USA

DOI: 10.1002/sm2.4

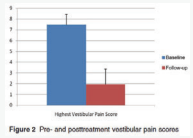


Figure 2 Pre- and posttreatment vestibular pain scores

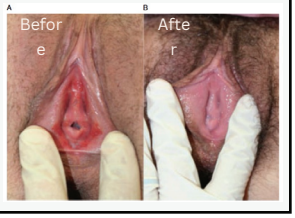


Chart review.

50 Premenopausal women, provoked pain in the vulvar vestibule.

Intervention: CHC stopped, topical Estradiol/testosterone

Free T increased, SHBG decreased w/intervention

Sexual Medicine
Open Access

ORIGINAL RESEARCH—WOMEN'S SEXUAL HEALTH

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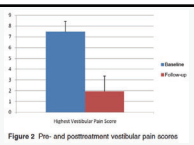
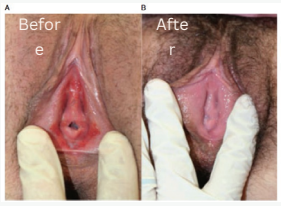


Figure 2 Pre- and posttreatment vestibular pain scores

Vestibulodynia is NOT just pain in the vestibule, but can be pain with urination, urethral burning. You can see WHY.



"Provoked vulvodynia was reported by 74.5% of IC cases."

J Sex Med. 2011 Jun;8(6):1726-34. doi: 10.1111/j.1743-6109.2011.02251.x. Epub 2011 Apr 7.

Interstitial cystitis is associated with vulvodynia and sexual dysfunction--a case-control study

Barbara Gardella, Daniele Porta, Rossella E Nappi, Maria Diletta Bacci, Alessia Chiesa, Arsenio Spinillo

Affiliations + expand

PMID: 21477020 DOI: 10.1111/j.1743-6109.2011.02251.x

Treatments

PELVICON SYMPOSIUM

Treatments

Address root cause	Topical therapy
• Change contraceptive method? • Can acne be treated non-hormonally? (ie. topical retinoid vs spiro?)	• Sometimes addressing the cause is not enough ○ persistent elevation in SHBG after COCs • Menopause is not reversible

PELVICON SYMPOSIUM

Topical treatments

3 take aways

- The vulva is a hormone sensitive organ (estrogens and androgens)
- Multiple life factors or medications can cause a low hormone state that contributes to hormone-mediated vulvar pain (ask!)
- Treat by addressing root cause and adding topical hormone therapy when appropriate

PELVICON SYMPOSIUM

Optimizing Vulvar Health with A Nutrition and Functional Medicine Approach

Jessica Drummond, DCN, CNS, PT, NBC-HWC

PELVICON Symposium

Jessica Drummond, DCN, PT, NBC-HWC

PELVICON Symposium

About Me

- Founder of IWHI
- Global speaker, PT, DCN, NBC-HWC
- 2X Bestselling author
- Private client care and women's health professional education since 1999
- Lived experience with a chronic illness + menopause transition

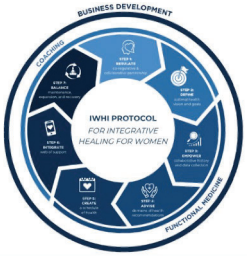
Objectives

- Vulvar pain and immune health
- Psycho-neuro-endocrine-immunology and vulnerability to vulvar pain syndromes.
- The intersection between the immune system, digestive system, and gut microbiome in vulvar pain.
- Where to begin?

PELVICON Symposium

Step-by-Step Approach

- Where to begin?
- These steps generally happen concurrently.
- Does your space/ your NS help your client to co-regulate?
- What does "health" mean to your client?



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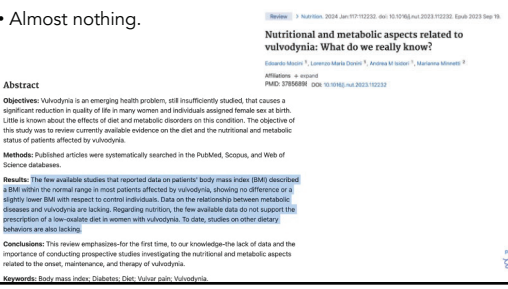
What does the literature say?

- Almost nothing.



Nutritional and metabolic aspects related to vulvodynia: What do we really know?

Abstract

Objectives: Vulvodynia is an emerging health problem, still insufficiently studied, that causes a significant reduction in quality of life in many women and individuals assigned female sex at birth. Little is known about the effects of diet and metabolic disorders on this condition. The objective of this study was to review currently available evidence on the diet and the nutritional and metabolic status of patients affected by vulvodynia.

Methods: Published articles were systematically searched in the PubMed, Scopus, and Web of Science databases.

Results: The few available studies that reported data on patients' body mass index (BMI) described a BMI within the normal range in most patients affected by vulvodynia, showing no difference or a slightly lower BMI with respect to control individuals. Data on the relationship between metabolic diseases and vulvodynia are lacking. Regarding nutrition, the few available data do not support the prescription of a low-oxalate diet in women with vulvodynia. To date, studies on other dietary behaviors are also lacking.

Conclusions: This review emphasizes–for the first time, to our knowledge–the lack of data and the importance of conducting prospective studies investigating the nutritional and metabolic aspects related to the onset, maintenance, and therapy of vulvodynia.

Keywords: Body mass index; Diabetes; Diet; Vulvar pain; Vulvodynia.

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We are asking the wrong question?

It's not… what food or diet "cures" vulvodynia?

Instead… What nourishment (including food/ nutrients/ herbs) can support nourishing the system, so that it does not need to express the "red flag" signal of vulvar pain because the system is now functioning more optimally.

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Consider Vulvodynia as an Autoimmune/ Inflammatory Disease

- Correlation with other autoimmune diseases, immune deficiency, and allergies/ atopy conditions

J Pain. 2023 Aug;24(8):1415-1422. doi: 10.1016/j.jpain.2023.03.007. Epub 2023 Mar 20.

The Association Between Immune-Related Conditions Across the Life-Course and Provoked Vulvodynia

Bernard L Harlow [1], Chad M Coleman [2], Hanna Mühlrad [3], Jacinth Yan [4], Evelina Linnros [5], Donghao Lu [6], Matthew P Fox [6], Nina Bohm-Starke [7]

Affiliations + expand

PMID: 36944787 PMCID: PMC10440273 (available on 2024-08-01)

DOI: 10.1016/j.jpain.2023.03.007

Abstract

Vulvodynia, impacts up to 8% of women by age 40, and is hypothesized to manifest through an altered immune-inflammatory response. To test this hypothesis, we identified all women born in Sweden between 1973 and 1996 diagnosed with localized provoked vulvodynia (N76.3) and/or vaginismus (N94.2 or F52.5) between 2001 and 2018. We matched each case to two women from the same birth year with no vulvar pain ICD codes. As a proxy for immune dysfunction, we used Swedish Registry data to capture 1) immunodeficiencies, 2) single organ and multiorgan autoimmune conditions, 3) allergy and atopies, and 4) malignancies involving immune cells across the life course. Women with vulvodynia, vaginismus or both were more likely to experience immune deficiencies (OR 1.8, 95% CI, 1.2-2.8), single organ (OR 1.4, 95% CI, 1.2-1.6) and/or multi-organ (OR 1.6, 95% CI, 1.3-1.9) immune disorders, and allergy/atopy conditions (OR 1.7, 95% CI, 1.6-1.8) compared to controls. We observed greater risk with increasing numbers of unique immune related conditions (1 code: OR = 1.6, 95% CI, 1.5-1.7, 2 codes: OR = 2.4, 95% CI, 2.1-2.9, 3 or more codes: OR = 2.9, 1.6-5.4). These findings suggest that women with vulvodynia may have a more compromised immune system either at birth or at points across the life course than women with no vulvar pain history. PERSPECTIVE: Women with vulvodynia are substantially more likely to experience a spectrum of immune related conditions across the life course. These findings lend support to the hypothesis that chronic inflammation initiates the hyperinnervation that causes the debilitating pain in women with vulvodynia.

What is Vulvodynia?

- "In this new taxonomy (2015), vulvodynia is defined as vulvar pain lasting at least 3 months, without a clear identifiable cause, which may have potential associated factors. An important difference between the new terminology used in the 2015 taxonomy compared to that of 2003 is the addition of the potential associated factors. **This addition implies a paradigm shift derived from research showing that some factors may be associated with the development and perpetuation of this clinical condition so that vulvodynia begins to be considered a multifactorial process**." (Torres-Cueco & Nohales-Alfonso, 2021)

Functional Nutrition Approach

- System-by-system approach. Aims to optimize the health of physiologic systems to support overall symptom relief.
- The goal is not to simply "quiet" any particular symptom.

Table 1

2015 Consensus Terminology and Classification of Persistent Vulvar Pain and Vulvodynia (ISSVD, ISSWSH, and IPPS) [11].

Vulvar Pain Caused by a Specific Disorder	Vulvodynia
Infectious (e.g., recurrent candidiasis, herpes)	Vulvar pain of at least 3 months' duration, without clear identifiable cause, which may have potential associated factors
Inflammatory (e.g., lichen sclerosus, lichen planus, immunobullous disorders)	**Localized** (e.g., vestibulodynia, clitorodynia) ~~Generalized~~
Neoplastic (e.g., Paget disease, squamous cell carcinoma)	**Mixed** (localized and generalized)
Neurologic (e.g., postherpetic neuralgia, nerve compression, or injury, neuroma)	**Provoked** (e.g., insertional, contact) **Spontaneous**
Trauma (e.g., female genital cutting, obstetrical)	**Mixed** (provoked and spontaneous)
Iatrogenic (e.g., postoperative, chemotherapy, radiation)	**Onset** (primary or secondary)
Hormonal deficiencies (e.g., genitourinary syndrome of menopause, lactational amenorrhea)	**Temporal pattern** (intermittent, persistent, constant, immediate, delayed

(Torres-Cueco & Nohales-Alfonso, 2021)

Functional Nutrition Approach

- Often our clients with vulvodynia ALSO have headaches, endometriosis, bladder pain, autoimmune conditions, digestive issues, TMJ, depression, anxiety, fatigue, etc.

Table 2

2015 ISSVD, ISSWSH, and IPPS Consensus Terminology and Classification of Persistent Vulvar Pain and Vulvodynia Vulvodynia—Potential Associated Factors [12].

Potential Factors Associated with Vulvodynia
• Comorbidities and other pain syndromes (e.g., painful bladder syndrome, fibromyalgia, irritable bowel syndrome, temporomandibular disorder; level of evidence 2)
• Genetics (level of evidence 2)
• Hormonal factors (e.g., pharmacologically induced; level of evidence 2)
• Inflammation (level of evidence 2)
• Musculoskeletal (e.g., pelvic muscle overactivity, myofascial, biomechanical; level of evidence 2)
• Neurologic mechanisms
○ Central (spine, brain; level of evidence 2)
○ Peripheral: neuroproliferation (level of evidence 2)
• Psychosocial factors (e.g., mood, interpersonal, coping, role, sexual function; level of evidence 2)
• Structural defects (e.g., perineal descent; level of evidence 3)

(Torres-Cueco & Nohales-Alfonso, 2021)

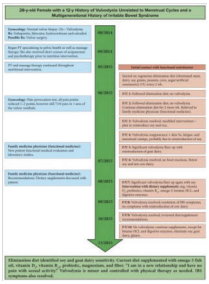
Our Goal is Whole Person Health

- The vulvodynia is a "red flag" for many potential systems functioning suboptimally.
- *"...some factors may be associated with the development and perpetuation of this clinical condition so that vulvodynia begins to be considered a multifactorial process."*
- Suboptimal autonomic nervous system function (h/o trauma, concurrent trauma, stress, infection, etc.) - could show up as myofascial dysfunction.
- Suboptimal digestive function
- Suboptimal psycho-neuro-digestive-immune-endocrine function

HOW to Use Nutrition for Systems Health?

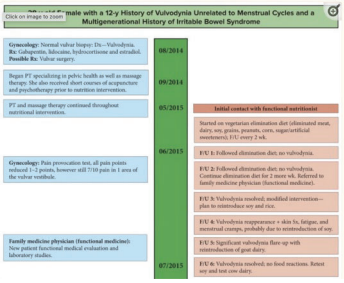
- Let's look at 2 cases…

28-year old Athlete with Vulvodynia and IBS



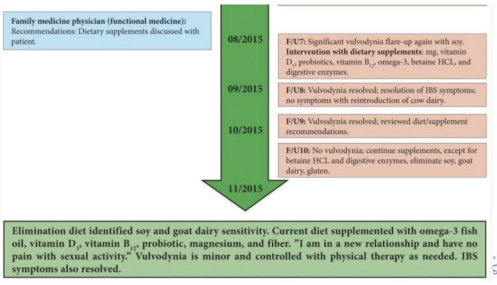
(Drummond, Ford, Daniel, Meyerink, 2016)

28-year old Athlete with Vulvodynia and IBS



(Drummond, Ford, Daniel, & Myerink, 2016)

28-year old Athlete with Vulvodynia and IBS



How Can We Support NS Safety with "Elimination Diet"?

- Focus on delicious foods, & joyful/ mindful eating, cooking, gardening, farmer's markets, grocery shopping.
- Focus on nervous system safely and pleasure strategies separate from food.
- Often food is our client's ONLY socially acceptable form of pleasure - coaching/ therapy re: trauma history around lack of safety, achievement as safety.
- Food can be an immune/ endocrine/ digestive system irritant, but ALSO a nervous system soothing tool.

Nourishment as Pleasure and Digestive/ Immune Healing

- Autoimmune paleo is the backbone.
- Personalize
- For example: This client is vegetarian.

Nourishment as Pleasure and Digestive/ Immune Healing

Foods to Avoid	Breakfast Sample Recipes	Lunch and Dinner Sample Recipes	Snacks
Dairy	**Coconut Yogurt Bowl:** Combine coconut yogurt with any combination of nuts (walnuts, pecans, almonds, cashews, etc—may be toasted for flavor), seeds (pumpkin seeds, hemp seeds, chia seeds, flax seeds, sesame seeds, etc), fruit (berries, chopped green apple or chopped pear, chopped stone fruit such as peaches, plums, or apricots), and/or toasted coconut. Yogurt recommendations: coconut yogurt, or cashew yogurt, or buy it	• Chipotle black bean and yam stew • Moroccan chickpea and potato soup • Red lentil soup • Zucchini bake • Summer black bean salad	• Fruit and nut butter (not peanut butter) • Vegetables and hummus • Vegetables and guacamole • Guacamole deviled eggs

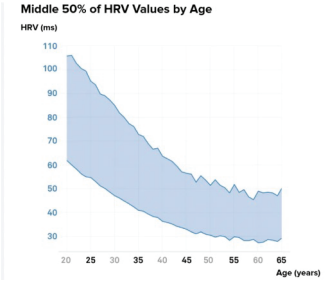
Nourishment as Pleasure and Digestive/ Immune Healing

Soy	**Smoothie:** Combine: • 1 cup of frozen fruit (berries, peaches, cherries, etc) • 1 avocado or 2–3 tablespoons of almond, sesame, or cashew butter • 1 cup of chopped greens (lettuce, kale, spinach, Swiss chard, etc) • 1–2 cups of hemp, almond, cashew, or coconut milk, or water • 1 serving of protein powder (choose PurePea vanilla, PurePea Chocolate, Vega Sport Vanilla, or any other flavor, or unsweetened hemp protein)	• Vegetable omelets	—
Grains (except quinoa)	Breakfast hash (can serve over quinoa, but avoid other grains for now)	• Quiche (leave out the meat)	—
Corn	—	• Vegan chili	—
Peanuts	—	• Stir fry (substitute coconut for soy)	—

When our Clients Feel Guilty About Self-Care

- Coaching: Personify the "voice in her head" that drives worthiness, pressure, inner critic.
- Boundaries
- When she takes the time to take care of herself - prepare her food, go to bed early, take a day off… What does the inner critic say? Exercise to separate that voice from her own.

Objectively Track Stress with HRV



Garmin or Oura Stress Tracking

Tracking Physiologic Stress Can Highlight Daily Stressors

- Sleep issues and Her Illness
- Thoughts
- Work
- Relationships
- Exposure to News or Stressful (Social) Media
- What else?

When our Clients Feel Guilty About Self-Care

Patient Perspective

My pain has been incredibly decreased overall since I started this program and my irritable bowel symptoms are much better!

I am not presently using any vaginal creams and I did not feel an increase in pain. I think soy was a major trigger and since eliminating it from my diet, my pain level has significantly decreased. Now when I get a flare, the worst it gets is about 3 out of 10, whereas before it could be an 8 or 9 out of 10.

I have started physical therapy (PT) again and am working on reducing the tension in the pelvic floor. I was able to jump back into the PT with more ease and bring in new breathing techniques and stretches now that we don't have to spend as much time on the muscles. Everything is going in a good direction!

The elimination diet is definitely a challenge. However, it is completely worth trying if it means it can help heal your body after so many years of pain. In order to really receive the benefits of the elimination diet, you definitely need to be committed to the plan, which can be hard (especially for very active, busy women). But it is really all possible with the help of a knowledgeable and patient nutritionist, advice from a team of other medical professionals who care about you, and support from your friends and family. And finally, the most important part of successfully completing the elimination diet, is giving yourself permission to focus on yourself, because you deserve to live a happy, healthy, and pain-free life.

(Drummond, Ford, Daniel, & Myerink, 2016)

Note

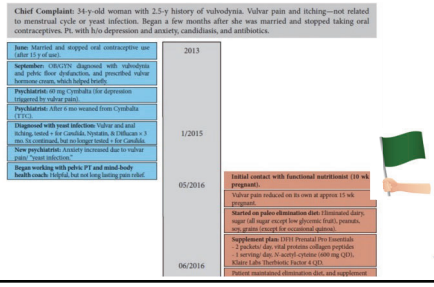
- That study was published in 2016, I no longer call this an "elimination diet". WAY too much disordered eating in the chronic pain community to focus on "elimination".
- Now: Start with Autoimmune paleo backbone
- I teach clients that this nutrition plan is where we will begin because of its extensive research efficacy in terms of supporting healing the functioning of the immune system in MS, Hashimoto's, IBD, etc.
- But, we personalize and consider client's relationship with food.

2018 Case

- A 34-y-old pregnant woman previously diagnosed with vulvodynia, irritable bowel syndrome (IBS), and depression used an elimination diet and nutritional supplementation- from 15 wk pregnant to 22 wk postpartum-to resolve her **vulvodynia** and **IBS**, and to reduce her use of antidepressant medication (**depression**).

(Drummond, 2018)

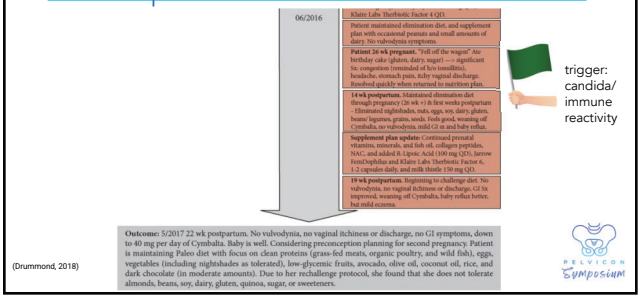
34-year old Pregnant with Vulvodynia, IBS, and Depression



immune system!

(Drummond, 2018)

34-year old Pregnant with Vulvodynia, IBS, and Depression



trigger: candida/ immune reactivity

(Drummond, 2018)

Set Your Clients Up for Joy Filled Success!

Patient Perspective

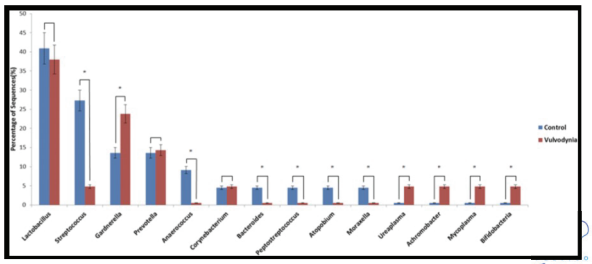
"Changing my diet played an instrumental part in changing my health. I suffered with severe pain, anxiety and depression. Now, I feel almost 100% improved. I no longer eat dairy, gluten, soy or processed sugars. Making the change was extremely hard, especially in social situations. It took me about a year to finally change my eating habits completely. In order for me to make the switch, there were a couple of things I had to do which included: working with a nutritionist who specialized in this, asking family and friends who were closest to me to support me in this change, practicing being kind to myself when I did eat something that was not on my diet, really making a conscious effort to read food labels and educate myself on what I could and could not have, and bringing snacks with me wherever I went, in case I went somewhere that did not have foods that I could eat. The change did not happen overnight. It truly was a lifestyle change—a process. However, it gave me life back. It was hard, but well worth it. I would not be where I am today without making these diet changes. Today, I can instantly tell when I eat something that is not on my diet because I immediately have symptoms flare. In short, the diet was paramount to my healing."

(Drummond, 2018)

Coaching Perspective of Nutrition Care

- What are underlying traumas that may be adding to overall ANS stress?
- What are day-to-day stressors?
- What support does your client have?
- When did your client last feel well?
- Any obvious triggers or storms? (pregnant + work stress + move + virus or vaccine + relationship stress + heavy sugar intake)

Vulvar Microbiome and Vulvodynia



(Park, Lee, Lee, Kim, & Chae, 2021)

Vulvar Microbiome and Vulvodynia

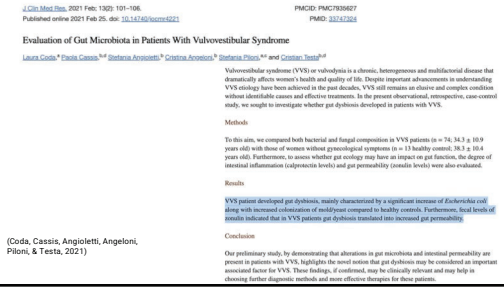
- Testing such as Evvy or Invivo Vaginal EcologiX (UK)
  - Stress
  - Partners' microbiota (oral, penile)
  - Nourishment to support beneficial bacteria: increase bitter foods, leafy greens, etc. reduce heavy/ sweet foods
  - Lubricants
  - Pre and probiotic supplements
  - Homeopathics (such as Good Clean Love)
  - Yin Care (Yao Company) Chinese Herbs for "Dampness"
  - Antibiotics when needed

Vulvar Microbiome and Vulvodynia

- Consider lubricants that don't irritate the vulvar microbiome, such as Good Clean Love and Desert Harvest
- Nourish vulvar health: estrogen, vulvar moisturizers (especially if peri/menopausal)

(Vieira-Baptista, Donders, Margesson, Edwards, Haefner, & Pérez-López, 2018)

Gut Microbiome and Vulvodynia



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Published online 2021 Feb 25. doi: 10.14740/jocmr4221 PMID: 33747324

Evaluation of Gut Microbiota in Patients With Vulvovestibular Syndrome

Laura Coda,[a] Paola Cassis,[b,d] Stefania Angioletti,[b] Cristina Angeloni,[c] Stefania Piloni,[a,e] and Cristian Testa[b,d]

Vulvovestibular syndrome (VVS) or vulvodynia is a chronic, heterogeneous and multifactorial disease that dramatically affects women's health and quality of life. Despite important advancements in understanding VVS etiology have been achieved in the past decades, VVS still remains an elusive and complex condition without identifiable causes and effective treatments. In the present observational, retrospective, case-control study, we sought to investigate whether gut dysbiosis developed in patients with VVS.

Methods

To this aim, we compared both bacterial and fungal composition in VVS patients (n = 74; 34.3 ± 10.9 years old) with those of women without gynecological symptoms (n = 13 healthy control; 38.3 ± 10.4 years old). Furthermore, to assess whether gut ecology may have an impact on gut function, the degree of intestinal inflammation (calprotectin levels) and gut permeability (zonulin levels) were also evaluated.

Results

VVS patient developed gut dysbiosis, mainly characterized by a significant increase of *Escherichia coli* along with increased colonization of mold/yeast compared to healthy controls. Furthermore, fecal levels of zonulin indicated that in VVS patients gut dysbiosis translated into increased gut permeability.

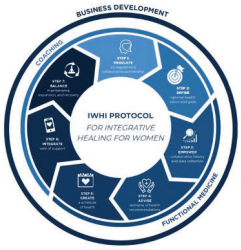
Conclusion

Our preliminary study, by demonstrating that alterations in gut microbiota and intestinal permeability are present in patients with VVS, highlights the novel notion that gut dysbiosis may be considered an important associated factor for VVS. These findings, if confirmed, may be clinically relevant and may help in choosing further diagnostic methods and more effective therapies for these patients.

(Coda, Cassis, Angioletti, Angeloni, Piloni, & Testa, 2021)

Probiotics

- There is not a current standard probiotic preparation to optimize the gut microbiome in those with vulvodynia.
- Instead think: Is this client eating enough prebiotic fiber? Personalize probiotic to GI MAP or Urinary OAT as needed.
- Does she have e.coli or yeast overgrowth on testing?
  - Stress
  - Sugar (Don't give a "Candida Diet" that will add stress + medical trauma to NS long term - same approach of *nourish* to heal)
- Consider lubricants that don't irritate the vulvar microbiome, such as Good Clean Love and Desert Harvest



Step-by-Step

- Vulvodynia is rarely in isolation.
- How can we use this red flag as an opportunity to nourish all systems.

Summary

Coaching to Unwind Stress & Trauma

- Personify inner critic
- Notice themes of worthiness, challenges with receiving support, and chronic stress or triggers.
- Identify daily stressors

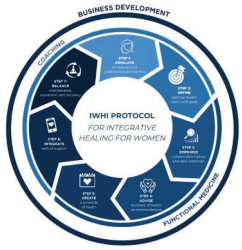
Nourish with Delicious Foods That Support Systems

- Autoimmune paleo nourishment
- Support cellular health with nutrient deficiencies
- Herbs, pre- & pro-biotics for microbiome health

Learn More

Free Workshop on Endometriosis and Pelvic Pain

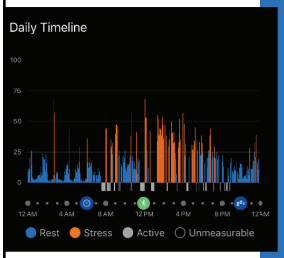
https://www.integrativewomenshealthinstitute.com/webinar-reg-page-ecp



Takeaway 1

- Step 1: Does the environment when your client works with you helps to regulate or dysregulate her nervous system?
  - Waiting room
  - Office staff
  - Your telehealth setting
  - Your nervous system
  - Noise, Sounds, Temperature

Your NS and space can help model & teach her how to regulate in other environments



Takeaway 2

- Is she tracking her daily stress, and have support & tools to support her brain and NS to heal from her trauma history?

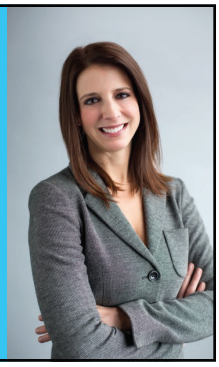
Takeaway 3

- Is she eating to strengthen and balance her immune system?
- Does her nutrition plan feel nourishing and safe cellularly and to her nervous system?

Vulvodynia: Differential Diagnosis of Nerve Involvement

Stephanie A. Prendergast, PT, MPT
Pelvic Health and Rehabilitation Center

PELVICON Symposium



Stephanie A. Prendergast, MPT
PHRC Pasadena

PELVICON Symposium

About Me

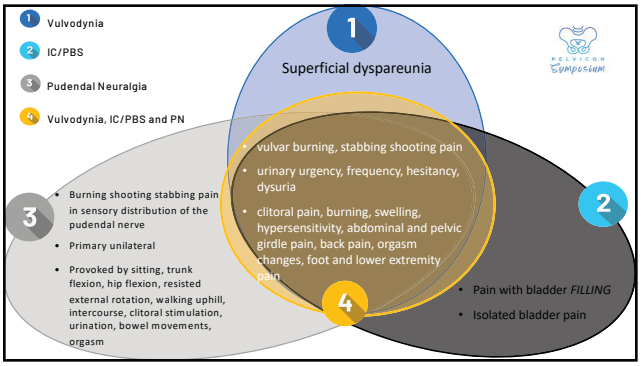
- Cofounder of the Pelvic Health and Rehabilitation Center
- Coauthor of Pelvic Pain Explained and Vaginismus, Vulvodynia, and Vestibulodynia: Your Guide To Management
- BOD of IPPS- 2018, 1st physical therapist to be President in 2013
- Developed the 1st course on Pudendal Neuralgia in 2006
- Associate editor of the J of Sex Med & faculty for ISSWSH
- Course Instructor for Tight Lipped

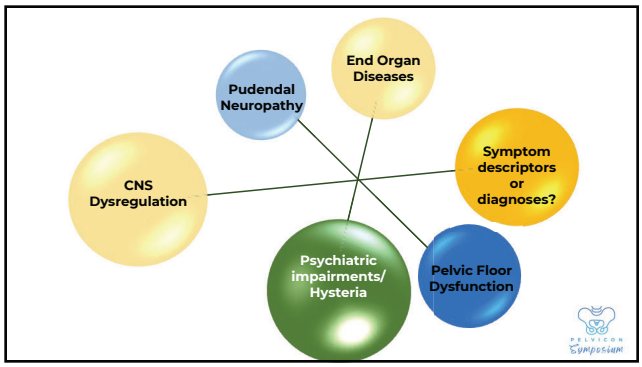
Objectives

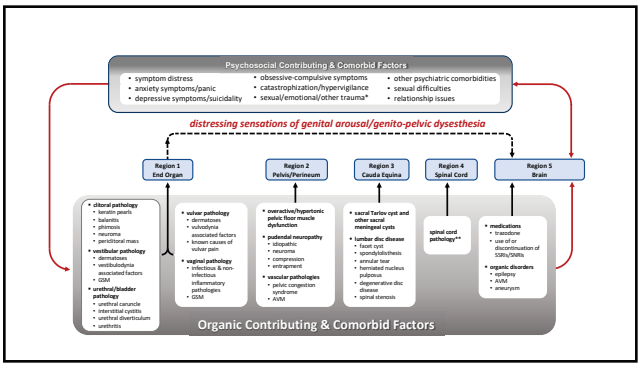
01
The learners will better understand the similarities & differences between Vulvodynia, IC/PBS and PN/PNE and understand the diagnostic criteria for each.

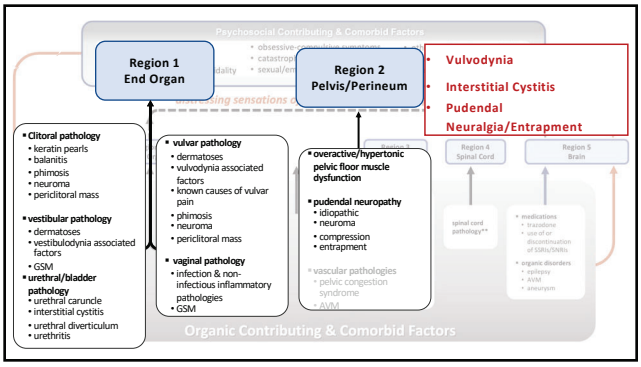
02
The learners will have improved understanding of history taking techniques to assist with a differential diagnosis.

03
The learners will have a better understanding of physical therapy examination techniques that can assist with a differential diagnosis and effective treatment.









Neural Considerations

- Congenital and Acquired Neuroproliferative Vestibulodynia (region 1)
- Pudendal Neuralgia (region 2)
- Tarlov Cysts (region 3)
- Spinal Pathology/Annular tears (region 3)

Meet Becky

- DOB: November 1989
- G0P0. Professional dancer before studying law, resides in Europe, single
- Contacted PHRC in January 2023
- Intake forms: I have had Pudendal Neuralgia for two years

Meet Becky: Intake Forms

- My symptoms are:
- Shooting burning pain in the vagina, clitoris, labia, to a debilitating degree, especially after defecation
- Numbness/electrifying sensation on my left side starting from the labia all the way to the perineum
- Urinary urgency, frequency, dysuria
- Lots of pain in the coccyx when sitting
- My left side is generally worse and more sensitive/reactive than my right side

Meet Becky: Intake Forms

- Triggers for the symptoms are:
- bowel movements
- urination
- sex
- sitting for the coccygeal pain

Meet Becky: Intake Forms

- A nerve block confirmed that the pain is coming from the pudendal nerve as the pain went to zero minutes after the block.
- Duloxetine and tramadol helped
- Acupuncture helped a little.

Meet Becky: Intake Forms

- Pelvic floor PT: made my symptoms worse.
- Overall, the pudendal nerve is extremely reactive, any internal massage/manipulation that is not super gentle will make things worse for a very long time or even permanently
- Saw 10+ PFPTs in Europe
- 30+ urologists, gynecologists, pain management doctors

Meet Becky: Intake Forms

- Underwent B Pudendal Nerve Decompressions and Endometriosis excision surgery (9 months ago)
- Nerve was compressed bilaterally, on the right side from enlarged veins and on the left side by the sacrospinous ligament, which was shortened by 2-3 cm.
- + biopsy for endometriosis

Meet Becky: Intake Forms

- The most debilitating symptom is clitoral and vaginal pain after bowel movements.
- An MRI I did showed bone swelling/edemas in the coccygeal vertebrae.

Meet Becky: Intake Forms

- Bilateral Pudendal Nerve Neuromodulator placed: March 2023
- Unable to get effective pain coverage after 3 weeks of trials with various settings
- Becky decided to continue on to Los Angeles to undergo an evaluation with me

1st Remote Visit with Becky: My Questions

- Goal: cannot tolerate internal MFR: HMV, congenital/acquired vestibulodynia, PN should be off the table…or should it not be?
- Did you experience vulvar burning at first insertional attempt?
- What is your history with oral contraceptives, acne medications, or medications for presumed endometriosis because of dysmennorhea?

1st Remote Visit with Becky: her answers

- Superficial dyspareunia from first intercourse attempt age 18, tampons painful
- Not menstruating as dancer, put on oral contraceptives to 'regulate' her period
- PCOS, high testosterone
- Frequent UTIs and yeast infections ages 18 - 31
- History of constipation

1st Remote Visit with Becky: her answers

- Age 31, intercourse, UTI, stabbing clitoral pain and vaginal pain
- Coccyx pain began
- Most medication not therapeutic
- L > R severe clitoral pain brought on by bowel movements and urination
- Clitoral and vaginal pain not worsened with sitting, but did report pain with sitting but at coccyx

Surgical Neural Considerations

- Congenital Neuroproliferative Vestibulodynia (region 2)
- Acquired Neuroproliferative Vestibulodynia (region 2)
- Pudendal Nerve Entrapment (region 2)
- Tarlov Cysts's (region 3)
- Lumbar pathology (region 3)

Medical Diagnostic Criteria: Vulvodynia

Vulvodynia

Consensus Statement

2015 ISSVD, ISSWSH and IPPS Consensus Terminology and Classification of Persistent Vulvar Pain and Vulvodynia

"Chronic pain of unknown origin in the vulva persisting at least 3 months". - 2003 ISSVD

Table 3. 2015 Consensus Terminology and Classification of Persistent Vulvar Pain and Vulvodynia

A. Vulvar pain: caused by a specific disorder*
- Infectious (eg, recurrent candidiasis, herpes)
- Inflammatory (eg, lichen sclerosus, lichen planus, immunobullous disorders)
- Neoplastic (eg, Paget disease, squamous cell carcinoma)
- Neurologic (eg, postherpetic neuralgia, nerve compression or injury, neuroma)
- Trauma (eg, female genital cutting, obstetrical)
- Iatrogenic (eg, postoperative, chemotherapy, radiation)
- Hormonal deficiencies (eg, genitourinary syndrome of menopause [vulvovaginal atrophy], lactational amenorrhea)

B. Vulvodynia—vulvar pain of at least 3 months' duration, without clear identifiable cause, which may have potential associated factors.

The following are the descriptors:
- Localized (eg, vestibulodynia, clitorodynia) or generalized or mixed (localized and generalized)
- Provoked (eg, insertional, contact) or spontaneous or mixed (provoked and spontaneous)
- Onset (primary or secondary)
- Temporal pattern (intermittent, persistent, constant, immediate, delayed)

* Women may have both a specific disorder (eg, lichen sclerosus) and vulvodynia.

Vulvodynia

2015 ICD-9-CM Diagnosis Code 625.7

Vulvodynia

2015 Non-Billable Code

2020 ICD-10-CM Diagnosis Code N94.819

Vulvodynia, unspecified

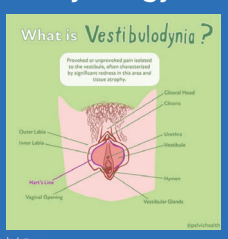
2016 2017 2018 2019 2020 Billable/Specific Code

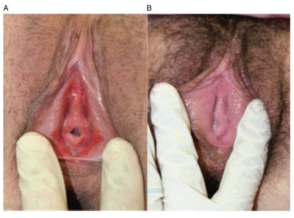
Table 4. 2015 Consensus Terminology and Classification of Persistent Vulvar Pain and Vulvodynia

Appendix: potential factors associated with vulvodynia*
- Comorbidities and other pain syndromes (eg, painful bladder syndrome, fibromyalgia, irritable bowel syndrome, temporomandibular disorder; level of evidence 2)
- Genetics (level of evidence 2)
- Hormonal factors (eg, pharmacologically induced; level of evidence 2)
- Inflammation (level of evidence 2)
- Musculoskeletal (eg, pelvic muscle overactivity, myofascial, biomechanical; level of evidence 2)
- Neurologic mechanisms
  - Central (spine, brain; level of evidence 2)
  - Peripheral: neuroproliferation (level of evidence 2)
- Psychosocial factors (eg, mood, interpersonal, coping, role, sexual function; level of evidence 2)
- Structural defects (eg, perineal descent; level of evidence 3)

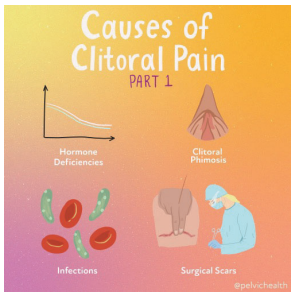
* The factors are ranked by alphabetical order.

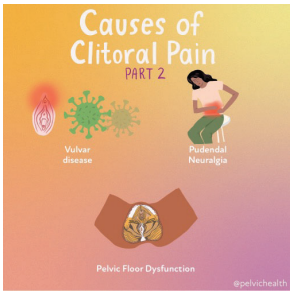
Vestibule Anatomy and Physiology





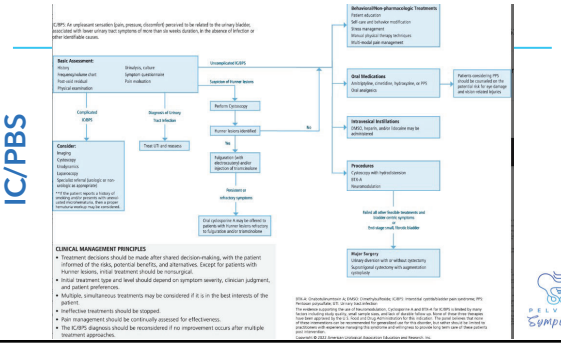
The CLITORIS!!



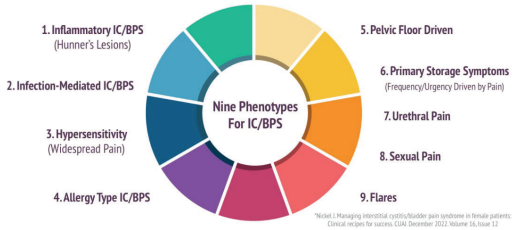


Medical Diagnostic Criteria: Interstitial Cystitis/Painful Bladder Syndrome AUA Guidelines 1st published in 2011, updated in 2014 and 2022!

IC/PBS



New Expanded IC/BPS Phenotypes Proposed*



Neuromuscular Urogenital Pain Mapping for Urogenital Pain

Pain mapping: A mechanisms-oriented protocol for the assessment of chronic pelvic pain and urogenital pain syndromes

MAREK JANTOS
Adelaide, Australia

DOI: 10.34057/PPJ.2020.39.01.002
Pelviperineology 2020;39(1):3-12

- **Objective:** develop a validated protocol to guide physical examination of pelvic structures
- **Materials and Methods:** Prospective study involving pain mapping of 320 volunteers consisting of women diagnosed with chronic urogenital pain a comparison group and a control group. The protocol uses 3 pain maps (external urogenital area, internal pelvic floor structures, paraurethral region) and follows an established strategy to maintain consistency.

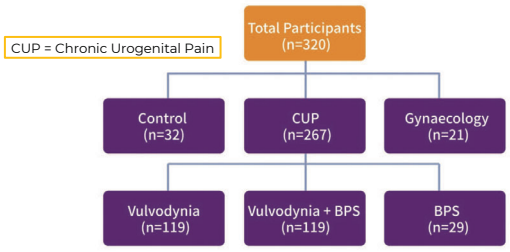


Figure 1. Study subgroup comparison structure. CUP: Chronic urogenital pain, BPS: Bladder pain syndrome

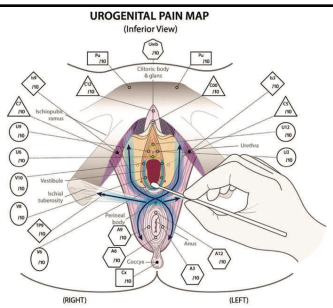


Figure 2 A. Map A–External Urogenital Pain Map, identifying

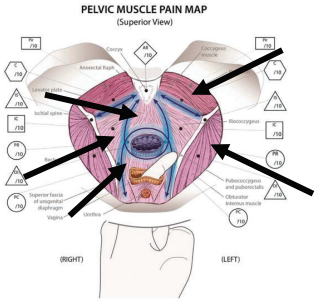
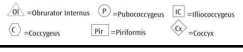


Figure 2 B. Map B–Internal pelvic structures assessed



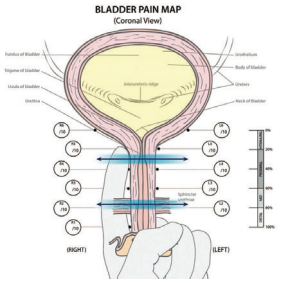
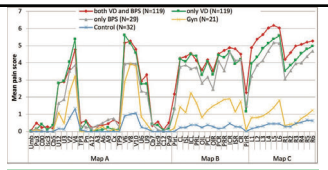


Figure 2 C. Map C–identifying paraurethral assessment points



Vulvodynia & BPS

Controls

Figure 3. Mean pain scores for all points on Map A, B and C, across all groups. VD: Vulvodynia; BPS: Bladder

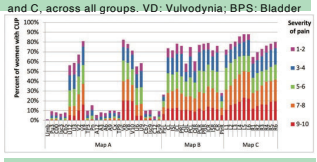


Figure 4. Severity of pain ratings for each point on the

Article Full-text available

Mapping chronic urogenital pain in women: insights into mechanisms and management of pain based on the IMAP Part 2

March 2015

Marek Jantos · Sherie Johns · Anna Torres · Ewa Baszak-Radomańska

Methods

- 70 patients with CUP and 28 asymptomatic controls
- Pain mapping in lithotomy position on empty bladder
- Each palpation point subjective reports of
  - 1 – 10 VAS
  - Characteristic of pain (modified McGill Questionnaire)
  - Spatial distribution and referred pain

Intervention

- EMG assisted pelvic floor relaxation training
- Internal and external myofascial therapy
- Desensitization of the paraurethral points
- 3 pain maps performed after treatment

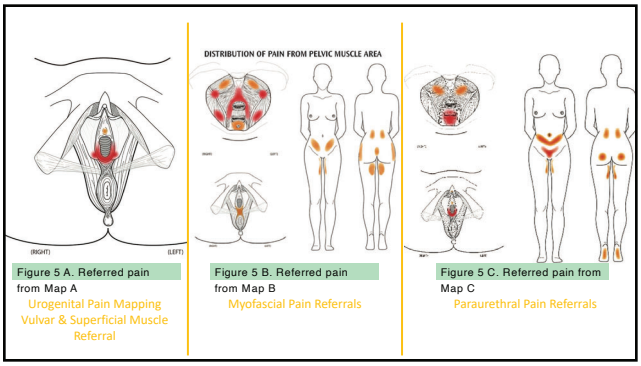


Figure 5 A. Referred pain from Map A
Urogenital Pain Mapping
Vulvar & Superficial Muscle Referral

Figure 5 B. Referred pain from Map B
Myofascial Pain Referrals

Figure 5 C. Referred pain from Map C
Paraurethral Pain Referrals

Paraurethral Desensitization Protocol

- Gentle compressions to the paraurethral pain points, held for 10 –15 seconds, pain from technique not to exceed 6/10 on verbal reporting scale
- Repeated multiple times until patient reports of subjective improvement to the technique
- Concurrent: diaphragmatic breathing
- Subsequent visits: lateral mobilization of fascia (starting at urethral edge)

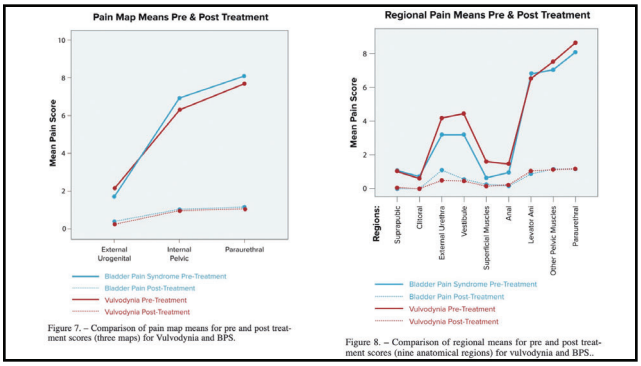


Figure 7. – Comparison of pain map means for pre and post treatment scores (three maps) for Vulvodynia and BPS.

Figure 8. – Comparison of regional means for pre and post treatment scores (nine anatomical regions) for vulvodynia and BPS..

Relationship: 9 pain regions, treatment, diagnosis

- Main effect of treatment was statistically significant
- Patient pain scores statistically significant after treatment
- Treatment by diagnosis was NOT significant, suggesting same treatment needed for IC and vulvodynia
- Post treatment pain scores had similar findings in controls, vulvodynia, IC
- High paraurethral pain scores suggestive of important diagnostic and therapeutic relevance

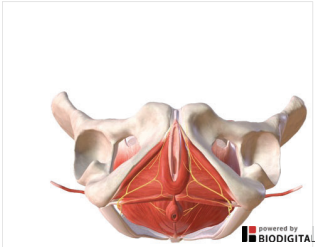
Medical Diagnostic Criteria: Pudendal Neuralgia and Pudendal Nerve Entrapment

Pudendal Neuralgia/Pudendal Nerve Entrapment

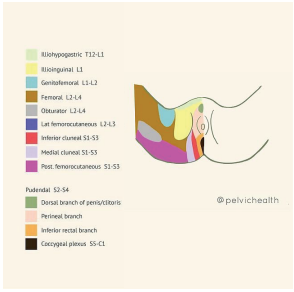
- Nantes Criteria: Essential Criteria
  - Pain in the territory in the nerve
  - Pain is predominantly experienced when sitting
  - The pain does not wake the patient at night
  - Pain with no objective sensory impairment
  - Pain relived with diagnostic sensory block

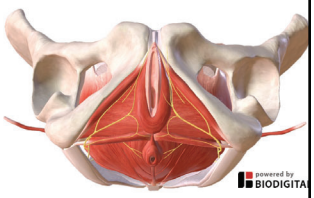
Pudendal Neuralgia

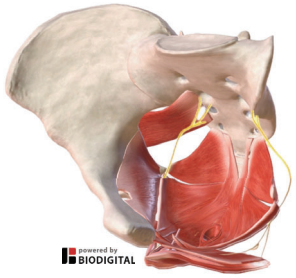
- Primarily unilateral
- Provoked by sitting, trunk and hip flexion
- Provoked by external rotation
- Provoked by hamstring and piriformis stretching

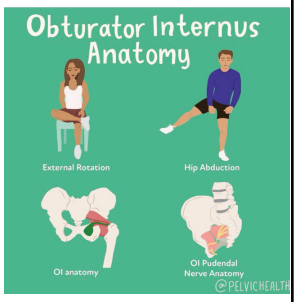


Pudendal Neuralgia & Pudendal Nerve Entrapment

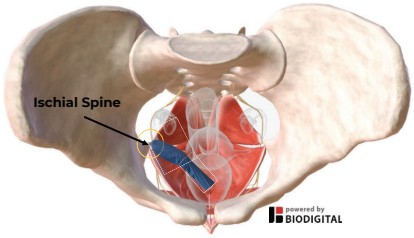








Transvaginal palpation of the pudendal nerve: Tinel's Sign



Pudendal Nerve Entrapment

- Currently no electrophsyiologic tests or imaging available to confirm PN is caused by PNE
- Most important: history
  - Obstetric injuries
  - Surgical trauma (Pelvic reconstruction, hip surgeries)
  - Other trauma

Pudendal Nerve Entrapment

- Do not assume failure to respond to conservative treatment means PNE
- Consider CNS involvement versus mechanical entrapment
- Consider Tarlov Cysts
- Pudendal nerve blocks are NOT diagnostic of PNE or even PN

Becky's Physical Examination

- External Examination
  - Severe connective tissue changes: bony pelvis, abdomen, gluteals, medial and posterior thighs
  - Myofascial Trigger Points in L > R Obturator Internus and Pirifromis muscles
  - Hyperflexed coccyx
  - SIJ/lumbar spine/hip unremarkable

Becky's Physical Examination

- Vulvar skin inspection
  - Erythema throughout entire vestibule

Becky's Physical Examination

- Vulvar skin inspection
  - Erythema throughout entire vestibule
  - Clitoral phimosis, excruciating pain during attempt to retract clitoral hood

Becky's Physical Examination

- Vulvar skin inspection
  - Erythema throughout entire vestibule
  - Clitoral phimosis, excruciating pain to attempt to retract clitoral hood
  - Careful transvaginal examination
    - Severe OI myalgia
    - (+) Tinel's sign at Alcock's Canal
    - Impaired neuromuscular control
    - Levator Ani and Urogenital Triangle myalgia

Assessment

- Linking history to physical findings
- Vestibulodynia: possible congenital or initially HAV, hormone deficiencies with amenorrhea and OCPs, developed PFD, infections, PN
- PN block not diagnostic of PNE, pain went "to zero" but the PN innervates the vestibule and the clitoris
- Questionable PN(E) mechanism
- Medical management needed

Next Steps

- Transvaginal manual therapy too provocative and not therapeutic due to the state of the vestibule and (+) Tinel's Sign
  - Clitorodynia not PN, but clitoral phimosis
  - Medical management needed: lysis of adhesions, initiate estradiol/testosterone topical
    - High circulating testosterone, no systemic testosterone needed
  - Obturator Internus, Levator Ani botulinum toxin

Over the next year

- Clitoral pain after bowel movement 90% eliminated after lysis of adhesions, clitoral pain after urination completely eliminated
  - Able to tolerate clitoral stimulation and orgasm
- Botox: reduced myalgia, Tinel's sign (-), able to tolerate internal manual therapy when avoiding vestibule, transanal work

Over the next year

- Vestibulodynia did not change with E/T
  - Congenital or acquired neuroproliferative the new differential diagnosis
  - Underwent vestibulectomy
  - All vulvar pain resolved
  - Started internal transvaginal manual physical therapy

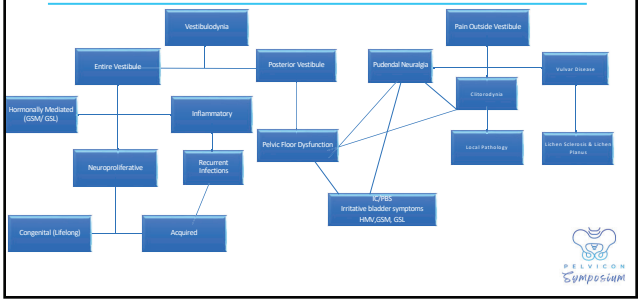
Current situation

- Able to tolerate and enjoy pain free intercourse
- Able to run and dance
- Normal urinary function, no symptoms
- Intermittent return of pain after bowel movements, 10% of previous severity
  - Centrally mediated?

Surgical Neural Considerations

- Keratin Pearls/Clitoral Phimosis (region 1)
- Congenital Neuroproliferative Vestibulodynia (region 2)
- Acquired Neuroproliferative Vestibulodynia (region 2)
- Pudendal Nerve Entrapment (region 2)
- Tarlov Cysts (region 3)
- Cauda Equina (region 3)

Vulvar Pain Considerations



Summary

- Subjective questions
  - Hormonally mediated, congenital, infectious, acquired?
  - Mechanical provocation? Territory of the pudendal nerve?
- Testing: lab work to evaluate SHBG, bioavailable testosterone, infections causes
- MRI to rule in/out Tarlov Cysts/Annular Tears
- Physical Examination:
  - Clitoral hood
  - Visual and Q-tip examination
  - Transvaginal muscle palpation and PN palpation

PELVICON Symposium

THANK YOU! Connect with PHRC!

@pelvichealth

stephanie@pelvicpainrehab.com

www.pelvicpainrehab.com/blog

www.pelvicpainrehab.com/careers

https://pelvicpainrehab.com/for-patients/#ebook

Pain Science: A Panacea or Philosophy?

Carolyn Vandyken, PT

www.reframerehab.com

PELVICON Symposium

Panacea
/ˌpæn.əˈsiː.ə/
noun
[obsolete]
1. All healing cure

Carolyn Vandyken, PT

PELVICON Symposium

About Me

- I am a…..Canadian, Clinician, Educator, Researcher and Advocate
- I Love Curiosity and Simplicity
- I am a Facilitator NOT a Fixer

Pain Science Education = Panacea or Philosophy?

- Panacea= Cure-all
- Philosophy= Love of Wisdom
- What are the fundamental truths about pain?

/fəˈlɪsəfē/
PHI-LOS-O-PHY
A particular system of thought based on investigation.

PELVICON Symposium

What are the fundamental truths about pain?

1. Pain is not a reliable measure of the health of tissues
2. Pain can be modulated by psychological, biological and social factors
3. The relationship between pain and the health of tissue becomes less predictable as pain persists
4. Pain can be thought of as the subconscious interpretation of threat

PELVICON Symposium

What are the fundamental truths about pain?

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2. Pain can be modulated by psychological, biological and social factors
3. The relationship between pain and the health of tissue becomes less predictable as pain persists
4. Pain can be thought of as the subconscious interpretation of threat

PAIN IS A PROTECTOR

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Definition of Pain (N = 1)

"An unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage" (2020)

IASP Working together for pain relief

The revised IASP definition of pain: concepts, challenges, and compromises
Raja et al. (2020) | Pain
DOI: 10.1097/j.pain.0000000000001939

PAIN

PAIN
The IASP classification of chronic pain for *ICD-11*: chronic primary pain

The majority of people with pelvic pain have a pain system problem

Chronic ~~Secondary~~ Pain

~~Pain as a result of a well-known disease~~

Chronic **Primary** Pain

~~Pain as a disease in its own right~~

Is Vulvodynia a Chronic Primary Pain Problem?

Dr. Caroline Pukall

- Is the pain of provoked vestibulodynia in the vulva? Yes
- Does the pain of provoked vestibulodynia exist outside the vulva? Yes
- Is the pain of provoked vestibulodynia "in the head"? (Pain System Hypersensitivity)

(Pukall et al, 2000, 2002, 2004, 2006, 2007)

ICS Definition

- Vulvar pain of at least 3 months' duration, without clear identifiable cause, which may have potential associated factors

Rogers R, Thakar R, Petri E, Fatton B, Pauls RN, Morin M, Lee J, Kuhn A, Whitmore K. International Urogynecological Association (IUGA) / International Continence Society (ICS) Joint Report on the Terminology for the Sexual Health in Women with Pelvic Floor Dysfunction. Int Urogynecol J. 2018; Neurourol Urodyn. 2018

PELVICON Symposium

Pelvic Pain Diagnoses

Strengths:
- Allows us to collaborate
- Names the tissues that are painful

Challenges:
- Leads to challenging "rabbit holes" on Dr. Google
- Keeps us focusing on "fixing" tissues

PELVICON Symposium

WHAT'S IN A NAME?

Vulvodynia
Vestibu
Iodynia
Painful
Bladder Syndrome/Interstitial Cystitis
Pudendal
Neuralgia

Research Paper

PAIN

"I wish I knew then what I know now" - pain science education concepts important for female persistent pelvic pain: a reflexive thematic analysis

Amelia K. Mardon[a,b], K. Jane Chalmers[a,b], Lauren C. Heathcote[b,c], Lee-Anne Curtis[a], Lesley Freedman[d],

Four themes of those women with "improved" pain

Theme #1: A sensitized nervous system leads to an overprotective pain system

Meaning to patients: Their pain is real

Research Paper

PAIN

"I wish I knew then what I know now" - pain science education concepts important for female persistent pelvic pain: a reflexive thematic analysis

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Four themes of those women with "improved" pain

Theme #2: Pain does not have to mean that the body is damaged

Meaning to patients: Increased pain does not mean that their condition is worsening

Research Paper

PAIN®

"I wish I knew then what I know now" - pain science education concepts important for female persistent pelvic pain: a reflexive thematic analysis

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Four themes of those women with "improved" pain

Theme #3: How I think about, "see" and feel my pain can make it worse

Meaning to patients: I can find many ways to manage my pain

Research Paper

PAIN®

"I wish I knew then what I know now" - pain science education concepts important for female persistent pelvic pain: a reflexive thematic analysis

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Four themes of those women with "improved" pain

Theme #4: I can change my pain… slowly

Meaning to patients: Provided hope that pain can improved and empowered them to pursue pain improvement as a viable goal

- Simple education helps reduce fears associated with LBP
- It is almost unethical for clinicians not to focus on reducing patients fears and false beliefs

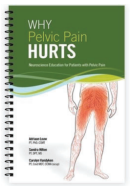
George et al, 2011

- There is compelling evidence that pain education reduces pain, disability, catastrophization and improves physical performance in persistent pain

Louw et al, 2012

Pain Education = Level 1 Evidence

Check it off the list??

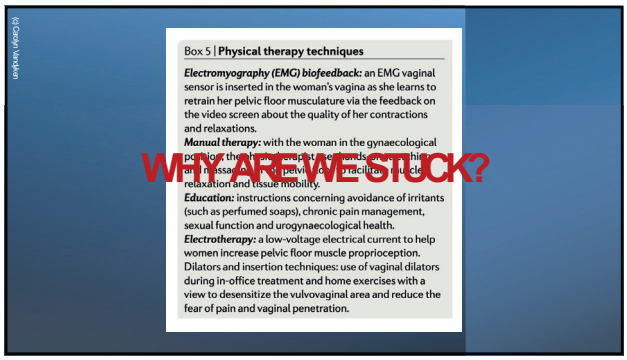


"Anxiety and depression may act as precursors, consequences and/or maintenance factors in vulvodynia, suggesting there could be a common pathway between pain hypersensitivity and mood disorders"

Bergeron S, et al. Vulvodynia. Nature Reviews Disease Primers (2020)

Box 5 | **Physical therapy techniques**

Electromyography (EMG) biofeedback: an EMG vaginal sensor is inserted in the woman's vagina as she learns to retrain her pelvic floor musculature via the feedback on the video screen about the quality of her contractions and relaxations.
Manual therapy: with the woman in the gynaecological position, the physiotherapist uses hands-on stretching and massaging of the pelvic floor to facilitate muscle relaxation and tissue mobility.
Education: instructions concerning avoidance of irritants (such as perfumed soaps), chronic pain management, sexual function and urogynaecological health.
Electrotherapy: a low-voltage electrical current to help women increase pelvic floor muscle proprioception.
Dilators and insertion techniques: use of vaginal dilators during in-office treatment and home exercises with a view to desensitize the vulvovaginal area and reduce the fear of pain and vaginal penetration.

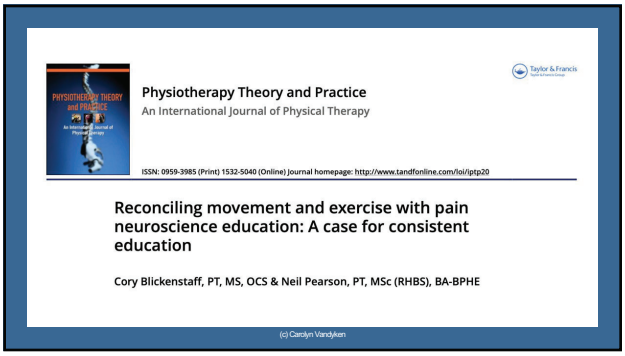


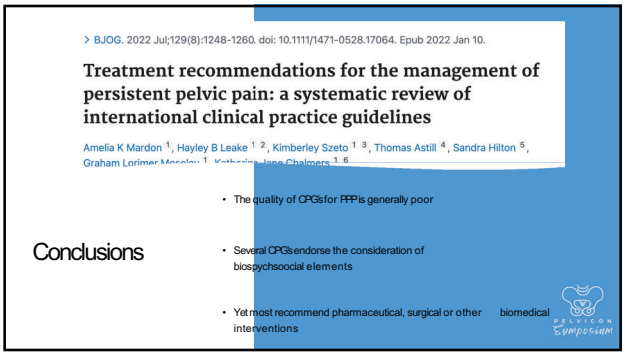
Biopsychosocial Model has had philosophical challenges

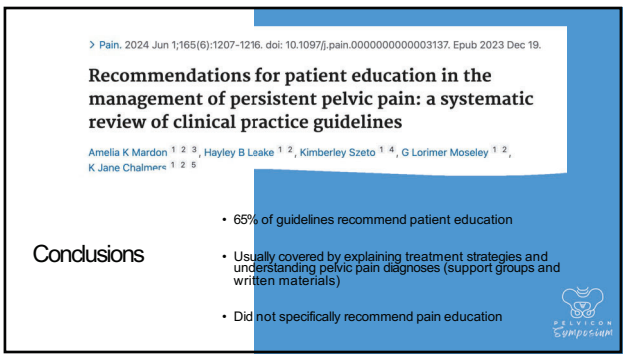
- In 1977, George Engel called for a new "medical model" that would incorporate social, psychological, and behavioral dimensions of illness
- 40 years later, the dawning era of personalized pain medicine emphasizes the importance of characterizing the inter-relationships between
  - psychological states
  - social/contextual forces
  - neurobiological processes

……for the individual patient, with the goal of optimizing treatment" (2018)

Meints SM and Edwards RR. Evaluating Psychosocial Contributions to Chronic Pain Outcomes. Prog Neuropsychopharmacol Biol Psychiatry. 2018 December 20; 87(Pt B): 168-182







A Biopsychosocial model starts with Person-Centered Care

Thomas Kitwood, an early advocate, defined PCC as:

"a holistic approach to delivering care that is *respectful and individualized, allowing negotiation of care*, and offering choice through a therapeutic relationship where persons are empowered to be involved in health decisions at whatever level is desired by that individual who is receiving the care."

Fixer or Facilitator? Reflecting on your Language

Biopsychosocial Framework

- Your tissues are healed but tight
- Your tissues are healed but weak
- Your nervous system is sensitive

Biomedical Framework

- Joints are "dysfunctional"
- You have trigger points
- Things are "out of place"
- Things are "broken" "twisted".. Or, insert any other biomechanical term here

Holopainen (2020)

…..explains that rehab clinicians are challenged to incorporate a

biopsychosocial framework

because we are trained to be "fixers" and the psychosocial pieces aren't amenable to being "fixed".

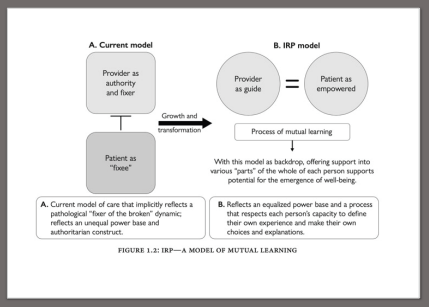


FIGURE 1.2: IRP—A MODEL OF MUTUAL LEARNING

Moving Away from Fixer/Fixee

Reference:
© Embody Your Mind / © Jessica Kingsley Publishing
Reference: Erb, M., & Schmid, A. (2021). INTEGRATIVE REHABILITATION PRACTICE: The foundations of whole-person care for. JESSICA KINGSLEY, London, England.

What does this mean for us?


Musculoskeletal Science and Practice 62 (2022) 102677

Contents lists available at ScienceDirect

Musculoskeletal Science and Practice

journal homepage: www.elsevier.com/locate/msksp

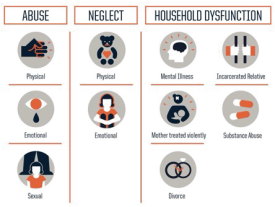
ELSEVIER

Avoiding nocebo and other undesirable effects in chiropractic, osteopathy and physiotherapy: An invitation to reflect

David Hohenschurz-Schmidt [a,*], Oliver P. Thomson [b], Giacomo Rossettini [c], Maxi Miciak [d], Dave Newell [e], Lisa Roberts [f,g], Lene Vase [h], Jerry Draper-Rodi [b,i]

Does our language create safety?

1. Providing emotional and physical safety by attuning to a patient's needs
2. Being trustworthy
3. Offering choices to patients
4. Collaborating with them
5. Empowering them



Trauma Informed Care for Physiotherapists (Stirling et al, 2020)

Research Paper

PAIN®

"I wish I knew then what I know now" - pain science education concepts important for female persistent pelvic pain: a reflexive thematic analysis

Amelia K. Mardon[a,b], K. Jane Chalmers[a,b], Lauren C. Heathcote[b,c], Lee-Anne Curtis[a], Lesley Freedman[d],

Four themes of those women with "improved" pain

Theme #1: A sensitized nervous system leads to an overprotective pain system

Meaning to patients: Their pain is real

Hashmi et al 2013

- Persistent pain is emotionally-driven (nociplastic)
  - Chronic pain is mapped in the emotional brain areas of the neuromatrix (FMRI)
- Acute pain is nociceptive-driven
  - Acute pain is mapped in the sensory areas of the brain neuromatrix (FMRI)
- Who has pain, a year after onset, is predicted by FMRIs and questionnaires:
  - Use CSI with all patients
  - Screen psychosocial factors (SAD CLLIFSS)
  - Screen for sensory-motor dysregulation

Dr. Bronnie Thompson

HealthSkills Weblog

Central sensitisation in chronic pain conditions: latest discoveries and their potential for precision medicine

Jo Nijs, Steven Z George, Daniel J Clauw, Cihan Fernández-de-las-Peñas, Eva Kosek, Kelly Ickmans, Josué Fernández-Carnero, Andrea Polli, Eleni Kapreli, Eva Huysmans, Antonio I Cuesta-Vargas, Ramakrishnan Mani, Mari Lundberg, Laurence Leysen, David Rice, Michele Sterling, Michele Curatolo

Precision Pain Medicine Starts with Screening

Central Sensitivity Inventory (CSI)

- Objectively measures Central Sensitivity in the clinic
- Demonstrated good reliability and validity
- Two parts, A and B- ONLY one must be positive
  - Cut-off for the presence of central pain mechanisms is >40 on Part A

Part B: Comorbidities

0 Fibromyalgia
0 Chronic fatigue syndrome (CFS)
0 Irritable Bowel Syndrome (IBS) and other functional GI disorders
0 Temporomandibular Joint Disorder (TMJD)
0 Restless Leg Syndrome (RLS) and Periodic Limb Movements in Sleep (PLMS)
0 Multiple Chemical Sensitivities (MCS)
0 Neck Injury (including whiplash)
0 Headache (tension > migraine, mixed)
0 Anxiety or panic attacks
0 Depression

PELVICON Symposium

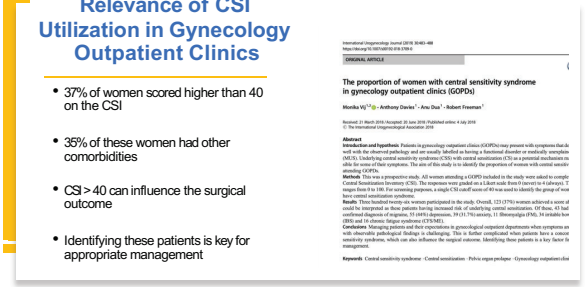
Similarities between Part B & Dr. Clifford Woolf's Checklist of Conditions Dominated by Central Pain Mechanisms=

COMORBIDITIES

- Fibromyalgia
- Chronic fatigue syndrome (CFS)
- Irritable Bowel Syndrome (IBS) and other functional GI disorders
- Temporomandibular Joint Disorder (TMJD)
- Restless Leg Syndrome (RLS) and Periodic Limb Movements in Sleep (PLMS)
- Idiopathic Low Back Pain (LBP)
- Multiple Chemical Sensitivity (MCS)
- Primary Dysmenorrhea
- Headache (tension > migraine, mixed)
- Migraine
- Interstitial Cystitis/Chronic Prostatitis/Painful Bladder Syndrome
- Chronic pelvic pain and endometriosis
- Myofascial Pain Syndrome / Regional Soft Tissue Pain Syndrome

Relevance of CSI Utilization in Gynecology Outpatient Clinics

- 37% of women scored higher than 40 on the CSI
- 35% of these women had other comorbidities
- CSI > 40 can influence the surgical outcome
- Identifying these patients is key for appropriate management



International Urogynecology Journal (2019) 30:483–488
https://doi.org/10.1007/s00192-018-3799-0

ORIGINAL ARTICLE

The proportion of women with central sensitivity syndrome in gynecology outpatient clinics (GOPDs)

Monika Vij[1,2] · Anthony Davies[1] · Anu Dua[1] · Robert Freeman[1]

Received: 21 March 2018 / Accepted: 26 June 2018 / Published online: 4 July 2018

Abstract

Introduction and hypothesis: Patients in gynecology outpatient clinics (GOPDs) may present with symptoms that do well with the observed pathology and are usually labelled as having a functional disorder or medically unexplain (MUD). Underlying central sensitivity syndromes (CSS) with central sensitization (CS) as a potential mechanism m elbit for some of their symptoms. The aim of this study is to identify the proportion of women with central sensiti GOPDs.

Methods: This was a prospective study. All women attending a GOPD included in the study were asked to comple Central Sensitization Inventory (CSI). The responses were graded on a Likert scale from 0 (never) to 4 (always). T ranges from 0 to 100. For screening purposes, a single CSI cutoff score of 40 was used to identify the group of wom have central sensitization syndrome.

Results: Three hundred twenty-six women participated in the study. Overall, 123 (37%) women achieved a score at could be interpreted as those patients having increased risk of underlying central sensitization. Of those, 43 had confirmed diagnosis of migraine, 55 (44%) depression, 39 (31.7%) anxiety, 11 fibromyalgia (FM), 34 irritable bow (IBS) and 16 chronic fatigue syndrome (CFS/ME).

Conclusions: Managing patients and their expectations in gynecological outpatient departments when symptoms an with others only pathological findings is challenging. This is further complicated when patients have a concur sensitivity syndrome, which can also influence the surgical outcome. Identifying these patients is a key factor fo management.

Keywords Central sensitivity syndrome · Central sensitization · Pelvic organ prolapse · Gynecology outpatient clini

Terminology: Sensitization NOT Central Sensitization

(VanGriensven, 2020)

1. Do not use "Central Sensitization" as a diagnosis
2. CSI Questionnaire does not give you the whole picture:
   - CSI is NOT associated with widespread sensitivity, which is a hallmark characteristic of CS **(diffuse pain, pain > 3/12, hypersensitivity to touch; Smart et al 2011)**
   - CSI is more strongly associated with psychosocial variables than with physiological markers of central sensitization
3. Sensitization requires phenotyping (profiling) of psychosocial factors:
   - Psychological comorbidities can have a direct influence on the nervous system through descending modulation- facilitation or inhibition
   - Systematic evaluation of psychological factors as well as physiological factors are needed to establish a comprehensive treatment approach

PELVICON Symposium

Pain System Hypersensitivity: So What? (N = 1)

1. Central pain mechanisms can be recognised by screening for disproportionate pain, assessing the distribution of pain through patient pain drawing and using the Central Sensitivity Inventory questionnaire
2. If central pain mechanisms are present, it predicts poor outcome following classical local treatments such as electrotherapy, manual therapy, motor control exercises and surgery **(recommendations from Bergeron paper on Vulvodynia)**
3. Treatment of patients in whom central pain mechanisms are present should address the (lifestyle) factors that sustain the process of central sensitisation, including illness beliefs (pain education), stress, sleep, physical activity and diet.

Nijs et al (2019): Central Sensitisation: Another Label or Useful Diagnosis?

Phenotyping Required

Psychosocial factors associated with pain and sexual function in women with Vulvodynia: A systematic review

Claudia Chivori [1], Mani B Monajemi [1], Whitney Scott [1, 2], Rona Moss-Morris [3], Lance M McCracken [3]

Affiliations + expand

Depression, anxiety, catastrophizing, pain-anxiety, pain acceptance, body-exposure anxiety, attention to sexual cues, partner hostility and solicitousness, self- efficacy and penetration cognitions are highlighted as potentially important treatment targets in PVD.

Development Pelvic Pain Psychological Screening Questionnaire (3PSQ)

PTJ: Physical Therapy & Rehabilitation Journal | *Physical Therapy*, 2021;101:1–10
DOI: 10.1093/ptj/pzab015
Advance access publication date February 3, 2021
Original Research

APTA American Physical Therapy Association

How Might We Screen for Psychological Factors in People With Pelvic Pain? An e-Delphi Study

Angela Pontifex, PT[1], Caris Savin, PT[1], Caitlin Park, PT[1], Alina Filipe Nunes, PT, PGDip[1], K. Jane Chalmers, PT, PhD[2,3], Patricia B. Neumann, PT, PhD[4], Leo Ng, PT, PhD[1], Judith A. Thompson, PT, PhD[1,*]

[1]School of Physiotherapy and Exercise Sciences, Curtin University, Perth, WA, Australia
[2]School of Science and Health, Western Sydney University, Campbelltown, NSW, Australia
[3]IIMPACT in Health, University of South Australia, North Terrace, Adelaide, SA, Australia
[4]Schoolof Health Sciences, University of South Australia, North Terrace, Adelaide, SA, Australia
*Address all correspondence to Dr Thompson at: j.thompson@curtin.edu.au

Persistent Pelvic Pain Questi

		Never	Rarely	Sometimes	Often	Always
S	I often feel overly stressed	0	1	2	3	4
A	I feel nervous, anxious or on edge	0	1	2	3	4
HA	I worry a lot about my health	0	1	2	3	4
D	I feel down, depressed or hopeless	0	1	2	3	4
D	I take little interest or pleasure in doing things	0	1	2	3	4
M	I worry whether something serious is wrong	0	1	2	3	4
R	I can't seem to keep the pain out of my mind	0	1	2	3	4
HV	I pay close attention to my pain	0	1	2	3	4
SE	I cannot confidently participate in my normal activities despite the pain	0	1	2	3	4
H	I feel helpless in being able to reduce or cope with the pain	0	1	2	3	4
F	I am afraid of the pain	0	1	2	3	4
Av	I try to avoid anything that causes or worsens my pain	0	1	2	3	4
T	I have had a stressful or traumatic life event that has had a negative impact on me	No				Yes

Persistent Pelvic Pain Questionnaire (3PSQ)

If you are currently or have been previously sexually active, please answer the following two questions

Av	I have avoided sexual intimacy because of my pain	0	1	2	3	4
SA	I cannot confidently say no to sexual activity if I don't want it	0	1	2	3	4

Helps to explore referral to sex therapist or psychologist

CSI. 3PSQ. Now what?

WE Need a NEW Model for Persistent Pelvic Pain: Fit-for-Purpose Model

Wand BM, Cashin AG, McAuley JH, Bagg MK, Orange GM, Moseley GL. The Fit-for-Purpose Model: Conceptualizing and Managing Chronic Nonspecific Low Back Pain as an Information Problem. Phys Ther. 2023 Feb 1;103(2):pzac151. doi: 10.1093/ptj/pzac151. PMID: 36317747.

Fit-for-Purpose Framework (Patient Friendly) (CV)

Feeling Confident:
Hopefulness
Pain System Hypersensitivity:
- CSI A and B
- Distress Questionnaires

Feeling connected:
Feeling Safe in my body
Sensory-Motor Dysregulation:
- Fremantle Q's

Feeling Fit:
Nociceptive Drivers:
- Mechanical Sx
- Tight/Weak Tissues
- Endurance

Sleep and Diet

Pillars of Care:

The Fit-For-Purpose Model

Pillar ONE (Feeling Confident)
- Stress (DASS 21)
- Anxiety (DASS 21)
- Depression (DASS 21)

- Catastrophization (PCS)
- Low Self-Efficacy (PSEQ-2)
- Low Positive Affect (PANAS)
- Injustice (IEQ)
- Fear (TSK)
- Shame (self-compassion.org)

Pillar TWO (Feeling Connected)
- Sensory-Motor Dysregulation (FreBAQ, FrePAQ)

Pillar THREE (Feeling Fit)
- Address tissue health (tight, weak, endurance)
- Sleep and diet

Persistent Pelvic Pain Questionnaire (3PSQ)-Catastrophi[illegible]

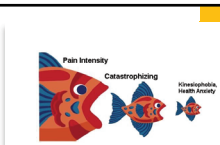
		Never	Rarely	Sometimes	Often	Always
S	I often feel overly stressed	0	1	2	3	4
A	I feel nervous, anxious or on edge	0	1	2	3	4
HA	I worry a lot about my health	0	1	2	3	4
D	I feel down, depressed or hopeless	0	1	2	3	4
D	I take little interest or pleasure in doing things	0	1	2	3	4
M	I worry whether something serious is wrong	0	1	2	3	4
R	I can't seem to keep the pain out of my mind	0	1	2	3	4
HV	I pay close attention to my pain	0	1	2	3	4
SE	I cannot confidently participate in my normal activities despite the pain	0	1	2	3	4
H	I feel helpless in being able to reduce or cope with the pain	0	1	2	3	4
F	I am afraid of the pain	0	1	2	3	4
Av	I try to avoid anything that causes or worsens my pain	0	1	2	3	4
T	I have had a stressful or traumatic life event that has had a negative impact on me	No				Yes

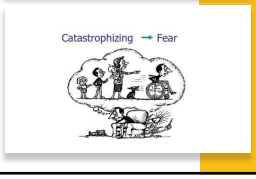
Pain Catastrophization Scale (PCS)

- Prognostic Questionnaire
- Extremely helpful construct that aids in decision making
- Easy to score
- Clear cut-offs
- Has been correlated with outcomes for:
  - Surgery
  - Pain Outcomes
  - Who will find benefit from pain education

Scoring the PCS

- Severe risk for developing/maintaining chronicity:
  - > 30
  - 70% describe themselves as totally disabled for occupationally-related activities
- Moderate risk for developing/maintaining chronicity:
  - > 20





TARGETED RESEARCH- What does this look like for catastrophization?

JAMA Neurology | Original Investigation

Effect of Intensive Patient Education vs Placebo Patient Education on Outcomes in Patients With Acute Low Back Pain
A Randomized Clinical Trial

Adrian C. Traeger, PhD; Hopin Lee, PhD; Markus Hübscher, PhD; Ian W. Skinner, PhD; G. Lorimer Moseley, PhD; Michael K. Nicholas, PhD; Nicholas Henschke, PhD; Kathryn M. Refshauge, PhD; Fiona M. Blyth, PhD; Chris J. Main, PhD; Julia M. Hush, PhD; Serigne Lo, PhD; James H. McAuley, PhD

The patients who did the best with pain education in acute pain were those who were catastrophizing
Traeger et al, 2018

There is compelling evidence that pain education reduces pain, disability, catastrophization and improves physical performance in persistent pain
Louw et al, 2012

Persistent Pelvic Pain Questionnaire (3PSQ)- Fear

		Never	Rarely	Sometimes	Often	Always
S	I often feel overly stressed	0	1	2	3	4
A	I feel nervous, anxious or on edge	0	1	2	3	4
HA	I worry a lot about my health	0	1	2	3	4
D	I feel down, depressed or hopeless	0	1	2	3	4
D	I take little interest or pleasure in doing things	0	1	2	3	4
M	I worry whether something serious is wrong	0	1	2	3	4
R	I can't seem to keep the pain out of my mind	0	1	2	3	4
HV	I pay close attention to my pain	0	1	2	3	4
SE	I cannot confidently participate in my normal activities despite the pain	0	1	2	3	4
H	I feel helpless in being able to reduce or cope with the pain	0	1	2	3	4
F	I am afraid of the pain	0	1	2	3	4
Av	I try to avoid anything that causes or worsens my pain	0	1	2	3	4
T	I have had a stressful or traumatic life event that has had a negative impact on me	No				Yes

TARGETED RESEARCH- What does this look like for fear? (TSK)

ACRM AMERICAN CONGRESS OF REHABILITATION MEDICINE

Archives of Physical Medicine and Rehabilitation
journal homepage: www.archives-pmr.org
Archives of Physical Medicine and Rehabilitation 2019;100:9-16

ORIGINAL RESEARCH

Effects of a Patient-Centered Graded Exposure Intervention Added to Manual Therapy for Women With Chronic Pelvic Pain: A Randomized Controlled Trial

Mª José Ariza-Mateos, MsC, Irene Cabrera-Martos, PhD, Araceli Ortiz-Rubio, PhD, Irene Torres-Sánchez, PhD, Janet Rodríguez-Torres, MsC, Marie Carmen Valenza, PhD

Ariza-Mateos MJ, Cabrera-Martos I, Ortiz-Rubio A, Torres-Sanchez I, Rodriguez-Torres J, Valenza MC. Effects of a patient-centered graded exposure intervention added to manual therapy for women with chronic pelvic pain: a randomized controlled trial. Arch Phys Med Rehabil 2019; 100:9–16

Summary of recent graded activity or exposure studies.

Study	Sample	PIPT intervention	Standard PT intervention	Outcomes	Summary results
Ariza-Mateos et al.[3]	49 female patients with chronic pelvic pain Mean age: 41.9 years	*Graded exposure therapy and manual therapy* included manual therapy, pain education, and activity-based treatment focused on the patient's 5 most fearful tasks. Patients were exposed to tasks based on least to most fearful. Progressions were based on within-session changes in fear. Patients performed graded exposure for a single 45-minute session each week for 6 weeks. Patients in this group also received manual therapy similar to control group.	*Manual therapy* was performed to decrease pain or tension, increase motion, or improve balance or stability. Manual therapy included soft tissue mobilization, myofascial release, deep pressure massage, and muscle energy techniques. Patients received manual therapy for 45 minutes, 2 times per week, and for 6 weeks.	Disability: ODI Pain interference: BPI Pain intensity: BPI measured at 6 weeks and 3 months	There was a significant difference in postintervention and 3-month disability, with lower disability scores after graded exposure therapy. There was a significant difference in 3-month pain, with lower pain scores after graded exposure therapy.

Persistent Pelvic Pain Questionnaire (3PSQ)- A

		Never	Rarely	Sometimes	Often	Always
S	I often feel overly stressed	0	1	2	3	4
A	I feel nervous, anxious or on edge	0	1	2	3	4
HA	I worry a lot about my health	0	1	2	3	4
D	I feel down, depressed or hopeless	0	1	2	3	4
D	I take little interest or pleasure in doing things	0	1	2	3	4
M	I worry whether something serious is wrong	0	1	2	3	4
R	I can't seem to keep the pain out of my mind	0	1	2	3	4
HV	I pay close attention to my pain	0	1	2	3	4
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F	I am afraid of the pain	0	1	2	3	4
Av	I try to avoid anything that causes or worsens my pain	0	1	2	3	4
T	I have had a stressful or traumatic life event that has had a negative impact on me	No				Yes

TARGETED RESEARCH- What does this look like for anxiety?
Depression/Anxiety/Stress Scale (DASS21)

QUALITATIVE RESEARCH REPORT

To sense and make sense of anxiety: Physiotherapists' perceptions of their treatment for patients with generalized anxiety

Louise Danielsson, PhD-Student, RPT, Marianne Hansson Scherman, Associate Professor, RPT & Susanne Rosberg, Assistant Professor, PhD, RPT

Pages 604-615 | Accepted 12 Feb 2013, Published online: 22 Mar 2013
Cite this article https://doi.org/10.3109/09593985.2013.778382

Anxiety and Feeling Connected to our Body

Main Role: To sense and make sense of one's anxiety

- The body is the arena of anxiety
- To get in touch with oneself **(Turn towards the pain instead of away from it)**
- To get down to earth with oneself **(Body scan, grounding exercise)**
- To make sense of bodily sensations **(Pain Education: this is NOT dangerous)**
- To gain trust in one's capability of handling anxiety **(Worry journal)**

(Danielsson et al, 2013)

Persistent Pelvic Pain Questionnaire (3PSQ)- De

		Never	Rarely	Sometimes	Often	Always
S	I often feel overly stressed	0	1	2	3	4
A	I feel nervous, anxious or on edge	0	1	2	3	4
HA	I worry a lot about my health	0	1	2	3	4
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H	I feel helpless in being able to reduce or cope with the pain	0	1	2	3	4
F	I am afraid of the pain	0	1	2	3	4
Av	I try to avoid anything that causes or worsens my pain	0	1	2	3	4
T	I have had a stressful or traumatic life event that has had a negative impact on me	No				Yes

TARGETED RESEARCH: What does this look like for depression? (DASS21)

Received: 7 July 2023 | Accepted: 7 December 2023
DOI: 10.1002/nau.25368

CLINICAL ARTICLE

Neurourology Urodynamics | WILEY

Depressive feelings as mediator in the relation between adverse childhood events and lower urinary tract symptoms in males and females

Dina M. Mahjoob MSc[1] | Doreth A. M. Teunissen MD, PhD[2] | Gommert A. van Koeveringe MD, PhD[1,3] | Peter Leusink MD, PhD[4] | Marco H. Blanker MD, PhD[5] | Grietje E. Knol-de Vries PhD[5]

Conclusion: Childhood adversity and depression are areas of interest during the clinical assessment of patients with LUTS. Early detection of these conditions might help to manage risk, aid in the prevention of LUTS, and facilitate trauma-informed care.

What can we do as PT's to address depression (low mood) in the clinic?

✓ **Severe or Extremely Severe Depressed Mood**
- **Referral to trauma-informed talk therapy**

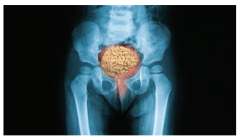
✓ **Moderate Depressed Mood:**
- **Exercise (walking)**
- **Yoga/meditation**
- **Resistance Training**

Characteristics of Persistent Pain- Pain is Like a Snowflake	How to Measure It	Treatment Considerations to Address Various Drivers
Central Sensitization	CSI- Central Sensitivity Inventory	Biopsychosocial Framework
Catastrophization	PCS- Pain Catastrophizing Scale	Reconceptualizing Pain- Education Meditation, Body scans
Self-Efficacy	PSEQ-2- Self Efficacy Questionnaire	Minimize Passive Treatment; Lived Experiences of Change
Low Positive Affect	PANAS- Positive Affect/Negative Affect Scale	Gratitude Training, Mindfulness- Positive Affirmations
Sensori-Motor Smudging	Fre-BAQ- FreMantle Back and Knee Questionnaire	Body Mapping Exercises- Sensori-motor integration exercises
Depression	DASS21- Depression, Anxiety, Stress Scale	Cardiovascular Exercise, CBT, Yoga, Resistance Exercise
Anxiety	DASS21- Depression, Anxiety, Stress Scale	Cognitive Behavioral Therapy; WOEBOT, Worry Journals
Stress	DASS21- Depression, Anxiety, Stress Scale	Evoke the Relaxation Response- yoga, meditation, tai chi/qi gong, prayer
Fear	TSK- Tampa Scale of Kinesiophobia	Graded Exposure, Fear ladders, CFT

Vulvodynia: We need a Philosophical Shift

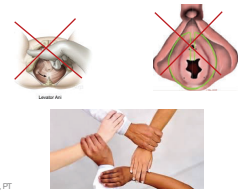
What's Involved?

- Biopsychosocial Perspective linked together by pain science (understanding a sensitized system)
- Giving hope of recovery



What's missing?

- Overt focus on "fixing" the tissues:



Carolyn@reframerehab.com

Please don't ever hesitate to reach out to ask questions

For case studies that dive deeper into this approach, go to Embodiaacademy.com and search:

Is it really Pudendal Neuralgia Part 1 and 2 (free coupon code: Pelviconsymposium2024)

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Sexuality Counseling Approaches for Patients with Vulvodynia

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PELVICON Symposium

Sexuality Counseling Approaches for Patients with Vulvodynia

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PELVICON Symposium

About Me

- Co-created an integrated wellness center with an endocrinologist in 2001
- Joined Hoag Hospital Women's Health Institute in 2015 with my office located in the pelvic floor PT clinic
- Author of What Every Mental Health Professional Needs to Know about Sex, 3rd Ed
- A decade providing continuing education The Buehler Institute and LearnSexTherapy.com

I have no financial disclosures.

Learning Objectives

- Describe the sexual and relational concerns of people with vulvodynia
- Use the sexological ecosystem to organize the patient's experience of vulvodynia and develop paths of inquiry
- Use cognitive behavioral therapy to educate the patient and address hopelessness, helplessness, and avoidance
- Use a brief solution-focused approach to help patients improve problem-solving skills and a more positive outlook
- Understanding the nature of sex therapy for more effective referrals

Contributing Factors

A complex diagnosis with many CFs

Psychological Factors and Sexual Function

- People with vulvodynia report many psychological issues
  - Depression: A lifelong predictor of long-term sexual pain
  - Anxiety: Associated with hypervigilance, fear avoidance and pain catastrophizing
  - Trauma: Avoidance of seeking help for vulvodynia and the possibility of pain-free sexual activity
  - Negative body image: Shame about the body; feeling "broken" or undesirable

Psychological Factors and Sexual Function

- Psychological factors contribute to higher pain scores and determine lower scores on sexual function and sexual satisfaction
  - Difficulty becoming sexually aroused
  - Lower sexual desire and infrequent or absent attempts at sexual activity
  - Difficulty with orgasm or anorgasmia which impacts motivation for sex
- Depression can contribute to feelings of powerlessness and lack of self-efficacy in resolving sexual pain
  - Remaining stuck and hopeless
  - Impacting relationship, and partner may also become hopeless

Sexual Health Aspects of Vulvodynia

- Negative attitude toward one's genitals which is associated with lower sexual function
- Not wanting body exposed during intercourse, leading to avoidance
  - Emotional vulnerability; may trigger a trauma response
  - Feeling ashamed of their own sexual arousal, or lack thereof
  - Worried that their body is "broken" or unattractive

See Chrisari et al. (2020) and Niedenfuehr et al. (2023) in reference list.

Sexual Health Aspects of Vulvodynia

- "Sexual contingent self-worth"
- The belief that one's value lies in ability to maintain a sexual relationship
  - "If I cannot have intercourse, I have no value."
  - "My partner will leave me for someone who can have penetration."
  - "Because I cannot have penetrative sex, I am infertile and broken."

Sexual Aspects of Vulvodynia

- Paying attention to negative sexual cues during intercourse
  - Focusing in on what is uncomfortable
  - Misinterpreting partner's behavior ("they only want me for sex")
  - Not attending to what **is** pleasurable
    - However, some women experience pleasure despite painful penetration as well lower pain catastrophizing and higher sexual function
- Approach/avoidance of sexual goals
  - "I want to have sex to feel close" vs. "I have sex to avoid losing my partner"
    - Those with higher approach goals and lower avoidance goals had better sexual function

Relationship Factors

- Greater sexual communication associated with lower pain and better sexual functioning vs. avoidance
  - "If we don't talk about it, maybe the problem will go away."
- "Sexual communal motivation"
  - The extent to which someone can be responsive to a partner's sexual needs while still attending to their own
  - "I must make sure my partner is satisfied and ignore my own pleasure"

Relationship Factors

- Both partner solicitousness and hostility were associated with higher pain intensity
- Relationship intimacy regarding disclosure and empathy was associated with better sexual satisfaction
  - Open communication about vulvodynia
  - Sharing what is and isn't pleasurable about touch

Relationship Factors

- In heterosexual couples, both partners may be mystified by sexual pain, with many implications
  - Not seeking out a diagnosis since pain with intercourse is "normal"
  - Woman being blamed for misdiagnosis and/or partner not believing the diagnosis
  - Avoidance of sexual communication and activity

See Myrtveit-Stensrud et al. (2023) in reference list.

Relationship Factors

- Feelings of guilt and shame
  - "It's all my fault" we can't have sex
  - Believing cause to be completely psychological
    - "It's because I'm uptight about sex."
    - "If I weren't so messed up in the head this wouldn't be happening."
  - Having or developing a rigid belief system

See Myrtveit-Stensrud et al. (2023) in reference list.

Cultural/Relational Factors

- Many cultures put the emphasis on reproduction and function over pleasure
- Women receive the message that sex is a "duty," and they are responsible for their partner's happiness
- Painful sex is "normal," and a woman needs to grin and bear it
- Internalization of heteronormative script that penis-vagina intercourse is the only legitimate way to have sex
- Practice cultural humility and not make assumptions—explore beliefs of each partner about what sexual activity means to them

Fear-Avoidance and Catastrophizing

- **Fear-avoidance:** Wanting to avoid any stimuli that may lead to painful activity
  - Lack of opportunity to practice sexual skills and expand sexual repertoire
  - Cleaves the emotional intimacy afforded by sexual activity
  - Interferes with motivation to lessen pain intensity
- **Catastrophizing:** Maximizing pain; belief that pain will never improve, and that life will never get any better
- Both contribute to low sexual function, sexual satisfaction, low self-efficacy relationship satisfaction

Sexuality Counseling Approaches

Practical Ways to Improve Self-Efficacy and Treatment Outcome

Overview

- Multiple review articles conclude that there is no one well-researched treatment—psychological or physical—for vulvodynia
- Anecdotally, an ecosystemic approach may help develop rapport and facilitate a collaborative relationship
- CBT may be helpful in disrupting negative thoughts and beliefs about the nature of pain, sexuality, and self-worth
- Solution-focused approach can help with "stuckness"

Sexological Ecosystemic Approach

With a nod to Dr. Uri Bronfenbrenner

Microsystem

- Microsystem: Individual attributes (biological, physical, psychological); family of origin; close extended family
  - What messages did you receive about sex from family?
  - More specifically, what messages did you receive about being a woman regarding sexuality?
  - What messages did you receive about your genitals, or your body in general?
  - What did you learn about physical pain, either through your own experience or observation?
  - Did you receive any messages, or witness anything, regarding pregnancy and labor and delivery?
  - What happened in your family when members were faced with a problem?

See Buehler, S. (2021, 2024)

Mesosystem

- Interactions between and among systems—couple's relationship; healthcare; workplace (work/life balance)
  - What experiences have you had in seeking a diagnosis?
  - How is this affecting your relationship?
    - Does your partner understand the diagnosis?
    - Are you able to communicate about your sex life?
    - How much responsibility are you taking for the impact of vulvodynia?
  - Is work creating stress or does your work schedule make it difficult to take care of yourself?

Macrosystem

- Systems that have significant influence—the media, religious organization, community and peers
  - Where did you learn what sex is "supposed to" be like?
  - Have your peers given you misinformation about sex?
  - How has your religious upbringing impacted your ideas about sex?
  - Is there something in your religious belief system that has been helpful?

Exosystem

- Systems that have indirect but significant influence—culture, legal system, myths and beliefs—the ethos
  - What is your culture's outlook on sexuality?
  - What is your culture's outlook on pain, especially sexual pain?
  - What myths do you hold about how women are "supposed to" act in the bedroom?
  - What beliefs do you hold about the healthcare system and its ability to help?

Chronosystem

- The impact of time on the individual and subsystems
  - I hear what you learned about sex from your family. Now that you are an adult, what do you believe about sex?
  - How did you imagine it would be to have a sexual relationship when you became an adult?
  - What do you imagine about your sex life and the quality of intimacy in the future?

Case Example: Janice

- Janice grew up in a household that was restrictive about sex. Although Janice was not abused, her mother told her she was abused and that, "Men only want one thing" and "Don't be surprised if sex hurts."
- When sex was painful, Janice told herself to grin and bear it. Eventually she shut down, leaving her partner sullen and angry at times.
- She was dismissed by several healthcare providers or given unhelpful suggestions to "just relax."
- Both she and her husband believed that they would never have children.
- PT felt like a last hope—but Janice wasn't very hopeful.

Further Thoughts

- It's okay to pick and choose areas of exploration
- Not all questions will fit all patients
- You can create questions based on the patient population or your own clinical experience
- Answers can determine if a referral to a psychotherapist who does sex therapy is appropriate

Cognitive Behavioral Therapy

A health psychology approach

CBT

- Cognitive behavioral therapy may include educating the patient; recommending actions to take; and addressing thought distortions
  - Compared to mindfulness, CBT was especially effective for women with primary vulvodynia
  - Women with secondary vulvodynia seemed to receive additional benefit if mindfulness training was included (Brotto et al., 2020)
    - Mindfulness training has been found to help cope with multiple chronic pain conditions
    - Also associated with improvement in sexual function

Begin with Education

- If possible, include partner
- What is know and unknown about vulvodynia
- What causes pain and what may make it better or worse
- Anatomy, for both patient and partner
- Sexual response
  - How arousal helps prepare the body for penetration, if part of the desire goal
  - What creates a pleasurable experience and perhaps orgasm
  - Why lubrication or HRT may be needed
  - What other types of sex--as well as sex positions--can be practiced

Add New Behaviors

- Plan and schedule for appointments and treatment compliance
- Techniques for down-regulating the nervous system
  - Diaphragmatic breathing
  - Yoga
  - Art, music, movement therapy
  - Mindfulness or movement meditation
- Communication with partner
- Support from family member(s), friend(s)

Create Positive Self-Talk

- Addressing negative sexual thoughts and distortions
  - "I am broken sexually," "I will never be able to have intercourse," "I have no value as a person if I cannot have sex"
    - Empathize with and accept the patient's feelings
    - Ask if they are willing to see how their thoughts might be influencing their feelings and behaviors
    - Give an example, such as, if someone doesn't believe they can improve their game score they will likely give up and stop trying

Black & White Thinking

- Identity black and white thinking
  - Using words like "never," "always," "impossible," "I can't"
  - Rephrasing statements to include future possibilities
    - "Today it is true I have never been able to have intercourse, but it may be possible in the future."
    - "I haven't enjoyed sex yet, but if PT helps then maybe it can happen."
    - "Even though I think I am always in pain, I can notice moments that are pain free."
    - "I have never noticed feeling pleasure during sex, but if I pay a little attention, it's possible that something might feel good."

Shoulds and Musts

- Identify "should" and "must" statements
  - "I must be able to have intercourse to get pregnant"
    - "It is possible to become pregnant even if I am unable to have intercourse."
  - "I should have sex with my partner if they need it."
    - "I may not be able to have intercourse, but I will ask my partner if they are open to other sexual activity."
  - "We must have penis-vagina intercourse to have sex."
    - "I can acknowledge that there are other ways of having sex. It may take time and experimentation, but we might even have fun learning."

Personalization and Generalization

- **Personalization** is the belief that one is responsible for all things
  - "I brought this condition on myself by being prudish about sex."
    - "No one is completely sure why vulvodynia happens. Maybe there are other things to consider."
- **Generalization** is taking one instance and applying it to everything.
  - "Sex was uncomfortable before my period, so I'm going to give up sex altogether."
    - "Sex was uncomfortable before my period, but I'm not sure if it is always uncomfortable then. I can keep a log and note down where I am in my cycle to better understand what is going on."

Solution-Focused Counseling

Emphasis on the possible future vs. the unsolvable past

Solution-Focused Counseling

- **The Miracle Question**
- Creating curiosity about the future and what is possible; motivating someone to attain their possible future.
  - "I'm going to ask you what might be a strange question. What if you woke up tomorrow and you no longer had vulvodynia, or it was greatly improved. What would be happening?"
  - "What steps can be created to help you have that kind of experience in the future?"

Solution-Focused Counseling

- **The Exception Question**
- Increasing awareness and using one's knowledge or wisdom to problem-solve and more forward
  - Has there ever been a time when intercourse was pain free?
  - Has there ever been a time when intercourse was painful, but your partner was supportive?
  - Has there been a time when you felt pleasure and pain?
  - If patient is not forthcoming with an exception, suggest that perhaps they will experience something different in the future.

Solution-Focused Counseling

- **The Scaling Question**
- What is your pain level today? And what might improve it from a "7" to a "5"? What could I be doing to help? What can you be doing to help yourself?
- You said you used your dilators one time this past two weeks. How might we work together to find ways to move that from one time to three times in three weeks?

About Sex Therapy

What is a sex therapist?

How Can Sex Therapy Help?

- A sex therapist is a licensed psychotherapist trained to use "talk therapy" to treat all kinds of common, and uncommon, sexual complaints
- Sex therapy never includes sex or physical contact
- Sex therapy may be brief, from 1-6 sessions, to intensive
  - Brief for newly emerged, mild to moderate issues
  - Intensive for long-standing issues and trauma
- Sex therapists may use different modalities, but the "secret sauce" is a blend of confidentiality and having time to explore thoughts and feelings that create barriers to resolution

Sex and Couples Therapy

- Generally important for the partner to be included in sex therapy for the treatment of vulvodynia and sexual pain
  - Partner may feel frustration, anger, depression, rejection, confusion—even if on the surface they seem fine
  - They may not understand vulvodynia nor its treatment
  - They may not have realistic expectations about treatment
- Diminish blame and finger-pointing about the problem
- Improve communication about sex
- For heterosexual couples, explore heteronormative sexual scripts
- Introduce or re-introduce sensuality and sexual exploration

Clinical Pearls

Take-aways to put into practice

Clinical Pearls

- The sexological ecosystem can give insight into the individual and systemic contributing factors, creating paths of exploration and opportunity to address unhelpful beliefs and areas that need healing.
- The psychological, sexual, and relational aspects of vulvodynia are complex, but identifying and working with just 2-3 negative thought patterns may help a patient become unstuck.
- Educating both the patient and the partner can help to de-mystify vulvodynia and help the partner become part of the treatment team.
- When possible, exploring the possibility of sexual activity outside of intercourse may be helpful when there is fear-avoidance. This may include thinking about heteronormative sexual scripts.
- Many women are socialized to believe that sex is a duty or that they are defined as being "useful" by how they fulfill their partner's sexual needs. Provided the partner is truly supportive, emphasize that sexuality is only one part of their identity and existence. Improving self-worth and self-esteem can increase self-efficacy and move PT forward.

Clinical Pearls

- Depressed mood, anxiety, and trauma can be addressed by a general therapist, but also sex therapists who are licensed psychotherapists who treat a broad range of problems.
- Solution-focused questions can be especially helpful when someone with vulvodynia appears to be "stuck" in treatment.
- When asking questions, acknowledge feelings and respond with empathy before attempting counseling interventions.

Thank you kindly.

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Practical Considerations & Treatment for the Pelvic Rehab Provider

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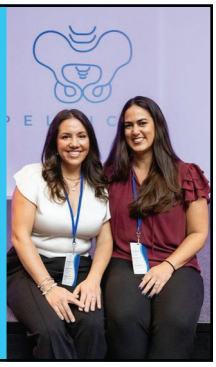

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About Nicole

- Doctor of Physical Therapy; (DPT) from Chapman University
- Board-Certified Pelvic Health Specialist (WCS)
- Founder of PelvicSanity, a cash-based pelvic rehab clinic in Orange County, California
- Founder of Pelvic PT Rising, an online education and mentorship platform for pelvic health professionals
- Author of The Interstitial Cystitis Solution (2016)
- Only pelvic floor PT to sit on ICA Board of Directors (2016-2023)
- Named The ICN Physical Therapist of the Year (2017)
- Named Chapman University DPT Alumnae of the Year (2012)
- Host of The Pelvic PT Rising Podcast with husband and business partner, Jesse Cozean
- Guest lecturer at Chapman University and CSULB and more
- Co-Founder of PelviCon

Dr. Jessica Reale, PT, DPT, WCS

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About Jessica

- Doctor of Physical Therapy (DPT) from Duke University
- Board-Certified Specialist (WCS) in pelvic health
- Founder of Southern Pelvic Health
  - Cash-based pelvic PT practice in Atlanta, GA
- Educator in pelvic health coursework, participating in the training of thousands of physical therapists and other health care providers across the world
- Co-author, "The Role of Physical Therapy in Sexual Dysfunction in Men and Women" ***Sexual Medicine Reviews***
- Co-founder of PelviCon
- Co-founder of Pelvic Floor University
- Founder, Pelvic Pro Collective
- Guest lecturer at Mercer University, Emory University, Georgia State University and the University of South Carolina, and more.

Financial Disclosures

- No relevant financial disclosures

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Objectives

Following this presentation, participants will:

- Recognize the role of pelvic floor rehabilitation in the care of patients with vulvodynia
- Identify key strategies to optimize the rehab examination and build a treatment plan
- Identify key strategies to optimize pelvic health rehabilitation interventions

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Pelvic Floor Rehabilitation for Vulvodynia

- Pelvic floor muscle dysfunction is common
  - Neuville et al. (2024) found that in 132 patients with provoked vestibulodynia, 91% had pelvic floor muscle dysfunction.
- Pelvic floor rehabilitation is an important component in multidisciplinary care
  - 10- week multidisciplinary program (medical, psychology, physical therapy) found 53% improvement in dyspareunia (Brotto et al., 2015)
  - Multicenter RCT found topical lidocaine + physical therapy superior to lidocaine alone (79% very much or much improved vs. 39%) (Morin et al., 2021)

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Pelvic Floor Rehabilitation for Vulvodynia

ACOG Committee Opinion #673: Persistent Vulvar Pain

"Women with vulvodynia should be assessed for pelvic floor dysfunction. Biofeedback and physical therapy, including pelvic floor physical therapy, can be used to treat localized and generalized vulvar pain." (Wexler et al., 2016)

Effectiveness of Rehab for Vulvodynia

- A 2022 review of 10 studies found that "... PFPT seems to be efficacious in patients with chronic prostatitis, chronic pelvic pain syndrome, vulvodynia, and dyspareunia." (**van Reijn-Baggen et al., 2022)**
- **A 2017 systematic review examining physical therapy modalities for provoked vestibulodynia stated, "...**modalities such as biofeedback, dilators, electrical stimulation, education, multimodal physical therapy, and multidisciplinary approaches were effective for decreasing pain during intercourse and improving sexual function." (Morin, Carrol & Bergeron, 2017)

Tips for Optimizing the Rehab Examination

Patients have been through varying journeys prior to their rehab evaluation

Intentionality during the evaluation can strongly impact the course of treatment

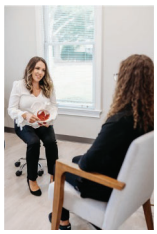
Evaluation Tip #1: Allow space for patient's journey & goals

"An average museum visitor spends 17 seconds looking at a work of art. Physicians spend 8 seconds listening to patients before interrupting. How long do we spend singularly looking at our patients, using all senses, being fully present?"

~ Dr. Martin Hueker (2018)

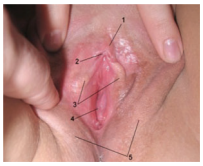
Evaluation Tip #1: Allow space for patient's journey & goals

- Consider the journey thus far (Niedenfuehr, Edwards & King, 2023)
  - Psychosocial considerations
  - Delayed diagnosis
  - Cost
  - Racial disparities
- Primary presenting complaints
- Goals for seeking care
- Goals for the day?



Evaluation Tip #2: Consider Irritability of tissues & symptoms for examination

- Global irritability vs. local irritation
  - Remember the goal of the initial evaluation!
- To cotton swab or not to cotton swab?



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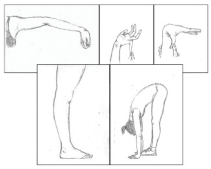
Evaluation Tip #3: This is a patient with pelvic pain

- How do we evaluate people with pelvic pain?
  - Examine the whole person, not just the vulva.
- Consider:
  - Movement assessment–full body approach
    - Spinal mobility, hips, feet, etc.
  - External and/or internal assessment of pelvis & pelvic floor muscles
  - ADLs, body mechanics, preferred exercise, etc.
  - Viscerosomatic convergence
  - Multidisciplinary care
  - Role of bladder & bowel dysfunction,

Evaluation Tip #3: This is a patient with pelvic pain

- Femoroacetabular impingement, labral tears and hip dysplasia correlated with vulvodynia and sexual dysfunction
  - Niedenfuehr & Stevens (2023) review- Surgery improved vulvodynia, clitorodynia and scrotal pain.
- High rate of vulvodynia & dyspareunia amongst individuals with Ehlers Danlos or hypermobility spectrum disorders (Glayzer et al., 2021)
- Common Comorbidities
  - Irritable Bowel Syndrome, Interstitial Cystitis/Painful Bladder Syndrome, Fibromyalgia (Reed et al., 2012)



Evaluation Tip #4: Consider other key members of the patient care team

- Does the patient have adequate medical care? pain management?
  - Build your network!
- For non-rehab providers: Has the patient had appropriate pelvic rehab?
  - Is the provider well-trained in pain?
  - Failed physical/occupational therapy? or just failed with 1 provider?

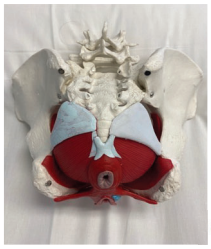
Practical Strategies for Rehab Treatment

Comprehensive treatment can include the orthopedic contributors, internal and external tissues of the pelvic floor & nervous system

A combination of treatment strategies is important for optimal pelvic health and wellness

Treatment Strategy #1: Utilize all available orifices

- In general, transrectal assessment and treatment can be a wonderful tool for:
  - People who cannot tolerate transvaginal exam/treatment
  - Finding the "why" to symptoms
  - Addressing secondary bowel/GI/rectal components to primary vulvodynia symptoms



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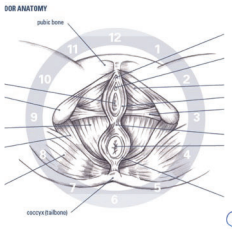
Treatment Strategy #1: Utilize all available orifices

- People with vulvodynia (musculoskeletal involvement) will commonly present with tenderness from the 4 to 8 o'clock position (King, Rubin & Goldstein, 2014)
- Perineal body, EAS, UGD muscles, coccyx and ischiorectal fossa must be part of the PT/OT differential diagnosis



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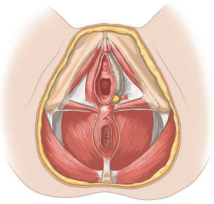
Treatment Strategy # 2: Consider the entirety of the pelvic floor

- First, consider timing for pelvic floor direct interventions
- Direct reproduction of vulvodynia symptoms is NOT necessary to indicate need for treatment to the pelvic floor
- Patients may present with symptoms at the vulva and vestibule but we must consider the autonomic nervous system's role in perpetuating tension/tightness in the entire pelvic floor
- Also consider pelvic floor muscle dysfunction and vulvar referral patterns

Treatment Strategy # 2: Consider the entirety of the pelvic floor

- Jantos et al. (2015) examined 82 patients with vulvodynia and IC/BPS. Significant pain with palpation identified at:
  - External: urethra, vestibule
  - Internal: levator ani, other pelvic floor muscles, paraurethral
  - Palpation of paraurethral structures led to referred symptoms at abdomen, low back, suprapubic, buttock, medial thigh and intense urgency symptoms – all decreased following intervention.



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Treatment Strategy # 3: Treat pain with respect, not fear

- Nervous system guided approach to treatment is necessary
- Patients with vulvodynia have been shown to (Pukall et al. 2016)
  - Have increased neural activity is response to painful vestibular stimulation in areas of the brain that involve pain modulation
  - Have augmented sensory processing in response to different thumb pressures over controls

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Treatment Strategy # 3: Treat pain with respect, not fear

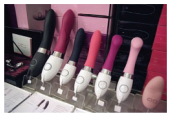
- Having vulvodynia symptoms - even if severe - is not an automatic disqualifier to transvaginal or external vulvar work
- Each individual's entire patient experience must be taken into account when determining how and when to implement direct strategies of treatment
- Flare management and communication with patient around flares is key
  - Flares should not be a surprise to the patient
  - Communication on mitigation strategies and proposed mechanism as to why is imperative

Treatment Strategy #4: Be Intentional in Use of Treatment Adjuncts

- Dilators/Trainers
- Wands
- TTNS
- TENS
- Lubricants & Moisturizers
  - Topical lidocaine or compounds prior to or after manual therapy
- Self-massage tools (balls, cups, etc)
- Cold pack/Heat
- SI Belts
- Cushions

Overview of Rehab Adjuncts

- Vibration and vulvar pain outcomes (Dubinskaya et al. 2023)
  - "… there is promising benefits demonstrated"
  - ↑ Sexual enjoyment, ↓ Vulvar Pain
- Zolnoun (2008) 49 women with vulvodynia treated with vibration therapy
  - 5-10 min daily, progressing to internal from external
  - 74% cited increased sexual enjoyment
  - 83% reported satisfaction with treatment
  - 90% were comfortable with provider offering vibration as treatment



Treatment Strategy # 5: Don't be afraid to 'journey' with your patient.

- Vulvodynia is a chronic pelvic pain condition with multiple contributing factors
  - Pain may have been present for a long time
  - Multiple systems may be involved
- Having vulvar pain is likely to be comorbid with other psychosocial factors that can make healing more complex
- Plan of care length can vary greatly and may be long

Treatment Strategy # 5: Don't be afraid to 'journey' with your patient.

- Patient education on realistic expectations based on their specific contributing factors, longevity and severity of pain, social support and nervous system state is imperative.

Conclusion

- Treat the person, not just the vulva/pelvic floor
- Be creative with use of adjunctive treatments
- Multidisciplinary care is key.
- Other providers: Remember pelvic floor rehabilitation providers are practitioners not treatments.