Updates in Abdominal Core Health

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wexnermedical.osu.edu/CACH
Disclosure Statement

Poulase – Salary support as Director of Quality and Outcomes for the ACHQC; research funding (Advanced Medical Solutions and BD); consulting (Ethicon)
How We Think About The Body
How We Think About Our Areas of Expertise

“The Anterior Abdominal Wall is the Problem!”

“It must be the Pelvic Floor.”

“No it’s the Back”

“Maybe it’s the Diaphragm?”
Common Sense Tells You It’s All Related
Abdominal Core Health – Practically Speaking

- Centers for Abdominal Core Health
- Intersection of rehabilitation/physical therapy and abdominal wall disease/interventions
- Recognizing the underappreciated benefits of stabilizing the anterior abdominal wall
- Impact on research
Hernias are Important, but There’s More

Ohio State Center for Abdominal Core Health
Women’s Health Issue – Largely Ignored
Abdominal Core Health In Practice

- Ohio State
- Cleveland Clinic
- Stonybrook
- Upstate University Hospital
- Harvard
- Mayo
- University of South Florida
Center for Abdominal Core Health - Tips

- Everyone has a Hernia Center
- Stand out in the market place
- Emphasize the holistic nature of the concept
- Have the multi-disciplinary components
- Marketing
- Managing referrals
Intersection Between Rehabilitation/PT and Abdominal Wall Disease/Interventions

Patient and Abd Wall Factors

Proper Healing And Function

Technical Performance Of Operation

Movement

Ohio State Center for Abdominal Core Health
Recognizing the Underappreciated Benefits of Stabilizing the Anterior Abdominal Wall
Laplace's Law

Wall Tension (T) = Transmural Pressure (P) x Radius (r)
2 x Wall Thickness (u)

Pascal’s Principle

Ohio State Center for Abdominal Core Health
Recognizing the Underappreciated Benefits of Stabilizing the Anterior Abdominal Wall
Recognizing the Underappreciated Benefits of Stabilizing the Anterior Abdominal Wall
Research Impact
Courtney Collins – GEMSSTAR R03 (NIA)

- “Frailty, Strength, and Mobility in Older Hernia Patients: A Novel Abdominal Wall Physical Therapy Program”
- $350k R03 grant funded from the National Institutes of Health/National Institute on Aging (NIA) Special Emphasis Panel
ACHQC Embedded Study-NIH Funding

- ABVENTURE-P: Abdominal Core Rehabilitation to Improve Outcomes After VHR
  - Registry based embedded study; pilot randomized, controlled trial
- Funded by the NIDDK ($800k)
Abdominal Core Rehabilitation to Improve Outcomes After VHR (ABVENTURE-P)

Steph DiStasi, PhD, PT
Ajit Chaudhari, PhD
Savannah Renshaw, MPH, MPA
Ben Poulose, MD, MPH
Lai Wei, PhD
Laura Ward, DPT, PT, MTC
Innovative Paradigm for Investigation

Abdominal Core Function
- Abdominal Wall Function
- Lower Back Function
- Diaphragmatic Function
- Pelvic Floor Function

ADL Function → Self-reported Quality of Life

Proposed mechanism for function and QoL in patients with hernia disease.

Special Thanks:
Ajit Chaudhari, PhD
Steph Di Stasi, PhD, PT

Ohio State Center for Abdominal Core Health
# Impact of Abdominal Core Health on Federal Funding

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43% of federal grants in hernia made possible because of Abdominal Core Health
The Real Research Questions We Need to Be Asking

- Can hernia repair improve pelvic floor function?
- Can hernia repair improve pulmonary function?
- Can hernia repair improve lower back pain?
- What happens at the mesh-tissue interface long term for different types of meshes?
- Can long term mesh use cause adverse immune system modulation or autoimmune issues?
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