



The integral theory paradigm in practice—addressing a major health crisis in bladder/bowel/pain management

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The integral theory paradigm (ITP) can be summarized as:

- ❖ Control of bladder & rectum is from outside the organ, from cortically-directed muscles and ligaments.
- ❖ Pelvic symptoms and prolapse are related.
- ❖ Defective ligament collagen is the main cause of both.
- ❖ “Repair the structure and you will restore the function”.

This special series has two main aims:

- (I) To outline the key discoveries on which the ITP is based.
- (II) To provide a practical guide for those seeking different, effective, anatomical methods to address bladder, bowel, chronic pelvic pain problems, whether surgical, or non-surgical.

In the context of lower urinary tract symptoms (LUTS), the ITP fits Kuhn’s concept of a scientific revolution (1), in that it addresses pathogenesis and cure of many conditions hitherto considered incurable. That one billion women on the planet suffer from these LUTS conditions is the substance of a major crisis. First line treatments such as anticholinergics for overactive bladder (OAB) are hardly effective, expensive, have bothersome complications, and can cause Alzheimer’s disease. Opioid treatments for chronic pelvic pain can lead to lifetime addictions.

The only bladder condition considered reliably curable is stress urinary incontinence (SUI) whose gold standard operation, the midurethral sling, is based on the ITP (2).

Yet, a solution for other bladder, chronic pain and anorectal problems, also based on the ITP, is in plain sight. Even a cursory review of this special ITP series will show that significant anatomical solutions to the aforementioned crisis, based on the ITP are available, some since 25 years (*Figure 1*).

These discoveries, pictorially summarized in *Figure 1*, were the product of extensive collaboration over more than 25 years between many colleagues who followed the ITP, communicated closely, shared data, techniques, experiences and wrote many papers. Many of their outstanding contributions are showcased in this series.

The core to the many different discoveries was the demonstration in 1990 (2), that control of the bladder (and later the anorectum) was not from the organ itself, but from outside it, from pelvic muscles and ligaments; furthermore, LUTS dysfunctions were mainly caused by collagen defects in these ligaments, and that LUTS could be cured by repairing the ligaments. The url for the 1990 Integral Theory publication for the bladder, is <https://obgyn.onlinelibrary.wiley.com/toc/16000412/1990/69/S153>, and for the bowel, https://www.researchgate.net/publication/267778578_The_MusculoElastic_Theory_of_anorectal_function_and_dysfunction. By permission *Pelvipelvineology*.

How this series is structured

The aim is to present short, penetrating insights into the

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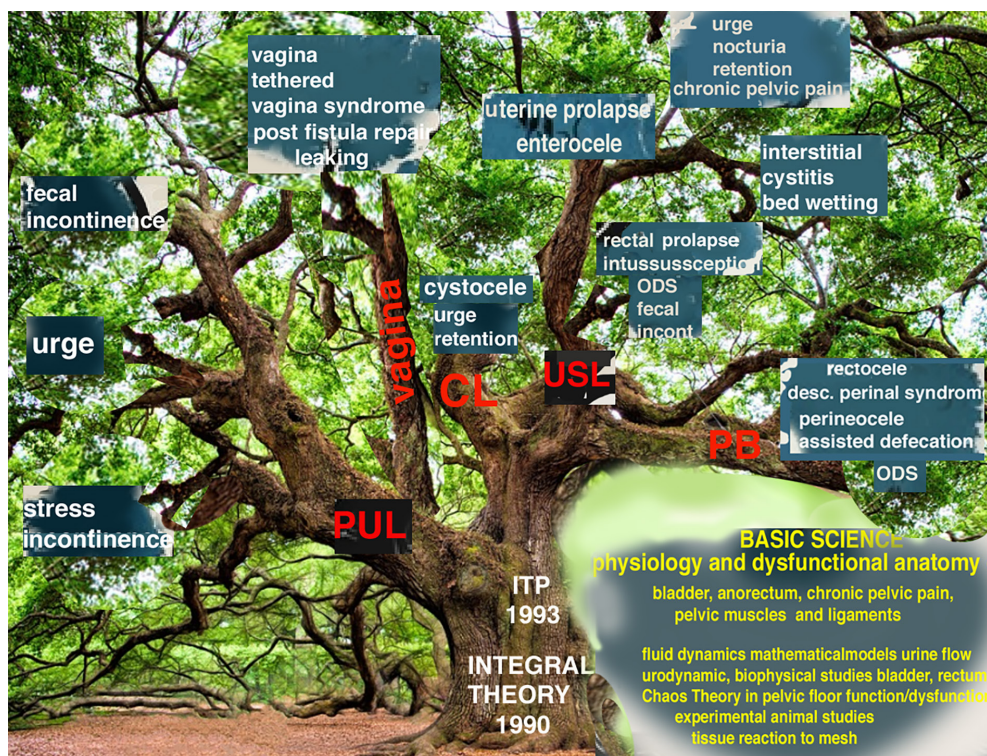


Figure 1 The ITP tree shows the expansion of the ITP between 1990 and 2022 to cure bladder/bowel/pain/prolapse conditions by strengthening ligaments, muscles, and restoring elasticity to the vagina by skin grafts. Many conditions in this figure, not envisaged as related to the original 1990 Integral Theory, were able to be cured by applying the ITP: for example, urinary retention, interstitial cystitis/bladder pain syndrome, obstetric fistula complications, fecal incontinence, obstructive defecation, descending perineal syndrome, Fowler's syndrome, day/night enuresis in children. Reused from Peter Petros' private collection, with permission from Peter Petros; retains ownership of the copyright. CL, cardinal ligament; USL, uterosacral ligament; PUL, pubourethral ligament; PB, perineal body; ODS, obstructive defecation syndrome; ITP, integral theory paradigm.

anatomical basis of bladder, bowel, chronic pelvic pain, prolapse dysfunctions, augmented by short explanatory videos. At the same time, the 19 papers in this series provide a practical guide for anatomically-based pathogenesis and treatment, diagnosis and treatment of the conditions in *Figure 1*.

A paradigm

According to Kuhn (1), “*the history of science is characterized by revolutions in scientific outlook. Scientists have a worldview or ‘paradigm’. A paradigm is a universally recognizable scientific achievement that, for a time, provides model problems and solutions to a community of practitioners.*”

Theories

There are two major theories for pelvic floor dysfunction.

The universal theory of Swash *et al.* [1985] (3) state bladder/bowel dysfunctions are due to birth-induced nerve damage to muscles. Such dysfunction may improve with time but are not otherwise curable. The second is the Integral Theory which states pelvic muscles contracting against ligaments control opening and closure of bladder and the anorectum, and that damaged collagen in ligaments is the main cause of bladder/bowel/pain/prolapse dysfunctions, which can be improved or cured by collagenopoietic surgical techniques.

Definitions followed are by the International Continence Society (ICS) (4).

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of interest to declare.

Ethical Statement: The author is accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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