Editorial

The Integral Theory—paradigm, not hypothesis

Darren M. Gold

Department of Surgery, St Vincent's Clinical School, University of NSW, Sydney, Australia

Correspondence to: Darren M. Gold, MSc, FRACS, FRCS(Gen), FRCS(Eng), MBBS. Department of Surgery, St Vincent's Clinical School, University of NSW, Victoria St., Sydney, NSW 2010, Australia. Email: d.gold@unsw.edu.au.

Keywords: Overactive urinary bladder; stress urinary incontinence; pelvic pain; fecal incontinence; pelvis

Submitted Aug 21, 2023. Accepted for publication Oct 29, 2023. Published online Dec 06, 2023.
doi: 10.21037/atm-23-1819
View this article at: https://dx.doi.org/10.21037/atm-23-1819

It is an honour to be invited to write the foreword for this special dedicated issue on the Integral Theory. I have been a dedicated follower of this theory having been first introduced to it having attended a pelviperineology international conference in Venice in 2009. Many clinicians and scientists introduced to the Integral Theory have often dismissed it as "only a theory", thereby confusing it with the term hypothesis. It is essential, however, for the reader to remember that scientific hypotheses are a preliminary explanation for an observed phenomenon but are usually based on limited data. They must be testable and falsifiable if they are untrue. In contrast, the National Academy of Science defines a scientific theory as a unifying explanation for a set of observations, inferences and tested hypotheses. Scientific theories are not unsubstantiated speculation; they are the foundation of our understanding of nature.

The last part of the previous sentence is of paramount importance. The Integral Theory provides an understanding of the symptomatology of pelvic floor dysfunction and very elegantly relates the anatomical disturbances to the associated symptom. It provides a detailed explanation as to how normal continence and function is maintained by the pelvic organs and supporting structures, and the precise functional interrelationship between these organs and the muscles of the pelvic floor. At this point, the reader should question their own understanding of pelvic floor anatomy and physiology and whether or not their understanding allows them to accurately explain the symptoms that they find themselves treating on an almost daily basis.

This edition contains 19 separate papers that the reader is recommended to read in order. The editorial includes an explanation as to why such a universal theory is required in order to move forward and manage one of the most common and disabling problems affecting women's health in the modern age. It is estimated that at any one time, approximately one billion women on the planet will be suffering from one or more symptoms of pelvic floor dysfunction.

Following an introduction, chapters 2, 3, and 4 give a precise explanation of the normal anatomy and physiology of the bladder and ano-rectum. Chapter 5 introduces the reader to an alternative explanation for pelvic pain of unknown origin and how this can be explained by the Integral Theory along with scientifically validated data. Having completed these first five chapters, the reader is introduced to a diagnostic system and algorithm to facilitate an easy diagnosis based on patients' symptoms alone. Chapters 7 and 8 provide an introduction to the surgical principles based on the Integral Theory paradigm: that accurate restoration of normal anatomy will restore normal function, along with methods for simulated procedures that can produce temporary symptomatic relief as part of the examination process.

Chapter 9 provides evidence that interstitial cystitis/bladder pain syndrome may be part of and included within, the posterior fornix syndrome and how this relates to the Integral Theory, along with potential methods of cure.

Chapters 10 to 15 provide a more detailed explanation of potential surgery for the management of these conditions, all of which are aimed at restoring ligamentous integrity. Chapter 12 is of particular importance, and I urge the reader having read the first 11 chapters to pay particular attention to its content. As well as restoring normal function by addressing tissue laxity there are specific conditions in

which an excess of tension and scarring will produce its own symptom complex. This understanding has not only allowed for a huge improvement in the management of patients with incontinence following surgery for obstetric fistula but explains a specific condition which will be seen in many patients having multiple procedures for stress incontinence and bladder prolapse. It details an identical syndrome that is currently poorly understood. Not only does the tethered vagina syndrome (TVS) elegantly explain and provide a treatment for this condition, it acts as a proof positive for the Integral Theory as a whole.

Chapter 16 provides some insight into the importance of muscle tone, force and balance along with the associated neurology in the control of bladder function and dysfunction. Chapter 17 provides evidence as to how specific squatting-based strengthening exercises can be used to cure bedwetting in children. It provides a non-surgical approach to pelvic dysfunction in premenopausal women who may not have yet completed their family and in whom surgery may not be appropriate. Having completed their reading, the reader may wish to leave a copy of this edition on the desk of a paediatric colleague specialising in enuresis.

Chapter 18 provides a comparison between the results of the current management paradigm and the Integral Theory paradigm in the management of pelvic organ prolapse and overactive bladder. At this stage, the reader may wish to refamiliarise themselves with the first paragraph of this Foreword. Chapter 19 extends the Integral Theory into the realms of hypothesis with regards to potential male analogues and early supportive evidence.

History has taught us that, "the science is never settled". Sometimes the science and understanding of an era change by evolution and sometimes by revolution. Either way, it is of paramount importance that new discoveries especially those providing supporting evidence are discussed and debated at scientific meetings, however heated these exchanges may become. It is how we learn; it is how we move forward, and it is how we make the world a better place. If nothing else we owe at least this to many of our brave predecessors (Copernicus, Galileo, Bruno, Semmelweiss, etc.) who fought and sacrificed for the beneficial changes in the world that we live in today.

Cite this article as: Gold DM. The Integral Theory—paradigm, not hypothesis. Ann Transl Med 2024;12(2):21. doi: 10.21037/atm-23-1819

Acknowledgments

Funding: None.

Footnote

Provenance and Peer Review: This article was commissioned by the International Society for Pelviperineology for the series "Integral Theory Paradigm" published in *Annals of Translational Medicine*. Peter Petros (Editor) and Vani Bardetta (Assistant Editor) served as the unpaid Guest Editors of the series. The article did not undergo external peer review.

Conflicts of Interest: The author has completed the ICMJE uniform disclosure form (available at https://atm.amegroups.com/article/view/10.21037/atm-23-1819/coif). The series "Integral Theory Paradigm" was commissioned by the International Society for Pelviperineology without any funding or sponsorship. The author has no other conflicts 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.

