Diagnosis and Prognosis through Intervention

Advanced Clinical Decision Making for the OMPT
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Session based upon refinement of the Regis Fellowship approach to OMPT initially developed as an evidence based test-re-test approach.

Development of an evidence informed dynamic clinical decision making model allowing OMPT practitioners from an eclectic background to advance skilled OMPT practice

Each maintained a unique treatment approach, yet holding to a core clinical decision making framework now titled the Dynamic Wheel.

Alternate title – Avoiding the anti-Einstein approach…

Insanity: doing the same thing over and over again and expecting different results. — Albert Einstein

So let's set you up 2 x wk for 6 weeks and decide on the treatment to happen day one to cover those twelve sessions…
If 80% or people with LBP will never have an accurate diagnosis, but you can sub-group them and provide interventions which based upon response (to the interventions) help you to classify them, leading to success, why even try to diagnose?

Hmm.

The Regis Challenge

- Many experienced clinicians in OMPT practice
- Very diverse backgrounds
- Recognition that one perfect approach in OMPT does not exist (22 Fellowships)
- All seeking to advance OMPT skill set and clinical decision making skill set
- …and living in an imperfect world of clinical research…

Why does the descending order exist?
For most diagnoses all that is needed is an ounce of knowledge, an ounce of intelligence, and a pound of thoroughness.

— Anonymous


 DIAGNOSIS, n. A physician’s forecast of disease by the patient’s pulse and purse.

— Ambrose Bierce

The Collected Works of Ambrose Bierce (1911).

An Egyptian medical textbook, the Edwin Smith Papyrus, written by Imhotep (fl. 2630-2611 BC), was the first to apply the method of diagnosis to the treatment of disease.

Wikipedia & crystallinks.com
Diagnostic handbook

1. A Babylonian medical textbook, the Diagnostic Handbook was written by Esagil-kin-apli (fl. 1069-1046 BC).

2. Combining observed symptoms in the body of a patient with diagnosis and prognosis.

3. and thus we started with prognosis...

DEFINITION

1. The prognosis is a prediction of the course, duration and outcome of a disease based on the pathogenesis of the disease and the presence of risk factors for the disease.

2. It is established after the diagnosis is made and before the treatment plan is established.

Prognosis

and herein lies a problem, we are not medical physicians, we do something very different...

Diagnosis and Prognosis first?

1. Navigation errors, Columbus & Dr Livingston, they both knew were they going didn’t they?
Navigation challenges in PT, that is why we do research.
Pinto, Abbott ongoing work in the MOA trials
Hip OA MT + EX, too much of a good thing but in planning interventions seemed like a great idea
Abbott 15 – metered dosage better with OA than all up front
Antagonistic effects of doing all the ‘best’ stuff straight away

**Diagnosis and Prognosis first?**

**Osteoarthritis and Cartilage**

Their own outcome
How they respond
and where is the 100% success trial?
N of 1 anyone?

**And what matters most to the patient?**

Who decided we needed prognosis on day one, are we tied to the medical model?
Maturation of a clinical decision making model, moving to a new paradigm of thinking
Bialosky et al showed some of the complexities of our shared CDM recently
Pattern recognition was articulated 23 years ago in PT research

**Clinical Reasoning in Manual Therapy – Mark Jones, 1992**

Basis for spinal manipulative therapy: A physical therapist perspective
Joel E. Bialosky, Corey B. Simon, Mark D. Bishop, and Steven Z. George
We needed something new.

1. A theorem which enables use of any baseline theorem in OMPT but directs re-testing of patient response from their vantage, not retesting the theorem.

2. A theorem which can be a genesis of case reports to drive research (lots of N of 1’s), a thought generator.

Our theorem was developed from constant exposure to advanced OMPT practitioners.

The question being asked “How do we really practice at an advanced level?”

We respected that you can enter with any manual therapy approach/paradigm/theory but...

You will need to change a few things.

Fear not.

Fellowship in Manual Therapy – The Initial Regis Approach:

It is our intent to advance the didactic and psycho-motor skill set of each FI within the field of OMPT, with emphasis to the following key elements:

Where we have been...
Embraces all three elements of evidence based practice (EBP), including the clinical experience of our mentors and our mentees.

Test-re-test approach in patient intra-session assessment such that it is the patient's response to a treatment intervention that directs the ongoing treatment plan.

Emphasis to reproduction of an asterisk sign or reproducible functional movement to reassess – Litmus test.

Interventions which are both therapist and patient selective based upon the concept that both patient and therapist vantage matter within the body of acceptable practice approaches.

How we broke it down I...

- Blending of specific axial and appendicular interventions in OMPT patient management with regional interdependence approaches.
- Safety - step-wise progression from least to most aggressive is often optimal, but not absolute based upon clinical examination.
- Learn from the body of OMPT approaches within the available literature, eclectic approach allowing for the maximal patient treatment options for the benefit of both patient and practitioner.
- Finally, recognizing that future practice may not mimic current practice, and that contributions to the EBP literature by FiT's is encouraged and expected. (so that was then...)

How we broke it down II...

- Box
- Wheel

Which moves forward better....
The Regis Approach, crafted in 2010 based upon the teaching approaches employed by core Fellowship Faculty.

The approach was not derived from the HOAC approach that the Regis Graduate school of PT taught.

Let’s recognize what has worked.

If an approach is working, should we change it?
Perhaps a better option is to refine what we have already been doing into more specific terms...
We had been doing something very different for a while, it worked very well, but what exactly is it?

Here is the Dynamic Wheel – Advanced Clinical Decision Making for the OMPT

The Dynamic Wheel

One time visit
Subjective box for initial hypothesis development
Dynamic wheel
Repeat
Clinical decision making (CDM) is inherent in all that a Physical Therapist does (hopefully) during the course of patient care. At the post-graduate level CDM should be different than at the entry level, noting that experience teaches the active learner accelerated paths to new learning. Thinking outside of the box may be finding a quicker vehicle to success.

Introduction

We are not looking to reinvent the wheel… The time honored subjective history taking is not being replaced, but what happens afterwards is… There are two parts to this process, Step A you do once, Step B you keep doing (thus making it dynamic). To keep it simple A precedes B.

A primer

Outputs of part B

Diagnosis, Prognosis, Evaluation, Intervention, Reflections.
What many first learnt

Do all of this before you start to provide interventions

Staying in the box/es
The HOAC is an excellent tool to develop a step wise initial approach, but can we establish a prognosis without assessing patient response to interventions within OMPT care?

As our skill set develops are we doing something different than step by step?

Can we multi task to achieve an optimal patient outcome?

Thoughts

Let’s consider RI in terms of CDM – what is the RI of different treatment types?

Is it logical that if we delve into interventions whilst still in the evaluative process will we have a better understanding of a patient’s prognosis instead of completing all steps in the examination – evaluation – assessment – prognosis – interventions path in order?

Do elements of interventions need to be completed to enable the clearest understanding of prognosis and to facilitate the most beneficial patient examination?

Experience tells us yes, this is how advanced practitioners in OMPT provide patient care.

Regional interdependence in CDM

The Subjective Box (put your ideas in it):

- Initial hypothesis development (the box)
- Information to synthesize – the subjective box
- Vantage, perception and therapeutic alliance developed and identified
- Threaded subjective components exist
- Initial output and entry to the wheel

The pieces of the puzzle
Information to synthesize – The subjective box

- Primary complaint
- Patient provided information with familial history
- Current progression in presentation - tincturing
- Systems review/review of systems
- Red, yellow and orange flags for OMPT interventions
- Psychosocial presentation
- Relation of presentation to CPGs, CDA's & TB on C's
- Functional tolerance with factoring of severity and irritability

Initial hypothesis development

- Vantage, perception and the therapeutic alliance
  - Therapist vantage for preferred treatment approach with past similar experience
  - Patient vantage for preferred treatment approach with past experience
  - Contrast or therapist/patient perception of impairment level
  - Contrast of vantages
  - Identification of patient learning style
  - Matching learning style to teaching approach
  - Forming a therapeutic alliance and a treatment contract

Initial hypothesis development

- Threaded subjective constructs
  - Unbalanced pillars of EBP
  - Avoidance of passivity in recovery
  - Engaging in lifelong interaction without discharge
  - Subjective reporting and negative influences to be reassessed

Initial hypothesis development

- Initial output
  - Subjective hypothesis noting patient and therapist vantage and level of therapeutic alliance with negative influences noted
About 80% of the information needed from treatment comes from the subjective examination.
But that may be if the treatment planned is the delivery of a pill...
Over here in the PT realm we are working in the grey and doing something different.

As we have heard before...

Time to turn - The dynamic wheel – Hypothesis refinement within care delivery (out of the box)
Primary intent - the production and refinement (with ongoing output) of diagnostic markers (classification), prognostic indicators, intervention guides for plan of care, refined problem list and discovery of patient-specific treatment innovations.

More pieces to the puzzle.

Threaded objective constructs of the wheel
Primary components of the wheel – assessment, interventions, examination and reflection (in no prescribed order)
Internal components
Overall goals

Final big pieces.
**Threaded objective constructs**
- Active interventions for re-test assessment
- No start or end point to the wheel
- Thinking outside the box to generate forward progress
- Using hands on treatment to establish ongoing information/output
- Deliberate matching to patient movement patterns/environment

**Small pieces of the wheel**

**Internal components**
- Symptom provocative tests
- Hands on interaction
- Non-verbal communication
- Creativity in matching patient circumstance
- Specific exercise instruction as early as able
- Agile changes from examination to assessment to treatment as needed

**Small pieces of the wheel**

**A to B, repeat B**
- Seeking intra-session then inter-session change in functional performance
- Patient approval to approach
- Reducing negative influences
- Patterning opportunity over impairment in interactions
- Patient self-actuation for recovery emphasized
- Creating a learning environment

**Overall goals**
The key concept in the Dynamic Wheel is:

Through the turning of the wheel optimal outcome be achieved. Staying in one point or only completing one revolution will diminish the distance traveled towards recovery. Each point on the wheel can actualize further gains for the patient as the constant obtainment of information and integration of care in a purposeful manner allows for the maximal scope of interventions and opportunity for success.

Each treatment sessions requires turning of the wheel!

The new model – step to it & turn

DW application in cases to accelerate prognosis

- Shoulder pain with potential thoracic involvement – thoracic manipulation within the evaluation
- Shoulder pain with potential cervical involvement – completing shoulder testing with cervical manual traction or manual stabilization applied
- Broad construct – re-test asterisk signs immediately upon review and first implementation of treatment
- Demonstrating reduced core motor control – spinal manual interventions to identify rapidly if inhibition presents versus atrophy
- An endless list.

Spinning the wheel – O’Reilly 15’
Finding prognosis/diagnosis

Questions anyone?