solutions
HEALTH PSYCHOLOGY GROUP

Neuropsychology
Clinical Psychology
Behavioural Medicine

Embracing the Nocebo Hypothesis to Improve Patient Outcomes

Jarred Munro, Clinical Psychologist

Reference and Acknowledgment

- Richardson, M., Isbister, G., & Nicolson, B. (2018). A novel treatment protocol (Nocebo hypothesis cognitive behavioural therapy; NH-CBT) for functional neurological symptom disorder/conversion disorder: A retrospective consecutive case series. *Behavioural and Cognitive Psychotherapy, 46,* 497-503.

- Many of these slides are from a full day ASSBI workshop in March 2020.

solutions
HEALTH PSYCHOLOGY GROUP

Neuropsychology
Clinical Psychology
Behavioural Medicine

Dr Mandy Vidovich

Jarred Munro

Dr Amanda Ch’ng

Who Am I?

- Clinical Psychologist 20+ years in Perth and London
- 14 years experience on Neurology Rehab Ward 2 SPC/ Ward A SRS-FSH
- 14 years in Private Practice
- Interest in Neurology and ABI, Adjustment to Disability, Chronic Pain and Behavioural Medicine.
- Acceptance and Commitment (ACT) Therapist

Assumptions

- FNSD is more common than we think
- Functionalism exists in all of us, i.e.
- Man Flu
- Pre exam toilet breaks
- Head lice
- Blood in the chicken dinner
- A functional event is highly distressing/anxiety provoking to the person experiencing it.
- FND can resolve very quickly once people accept the Nocebo formulation.

Assumptions the treatment is based on

- Functional neurological symptoms are the result of a nocebo response
- A person who, on some level (consciously or subconsciously) believes they are neurologically damaged has altered neurological functioning/neurotransmission as a result

The nocebo explanation – a strong piece of advice about your therapeutic stance!

- Therapists are normally meant to listen, be warm, genuine, and reflexive. Much of that is about reducing power imbalance to help the client to feel safe, and for a good reason
- This is problematic in NH-CBT. You need to be as confident as you can possibly be. You are a salesperson. Do not fear the expert position.
- The only need for gentle empathy is being vigilant, and minimising shame.
- Mat reports a 90% remission rate to his patients!
- Mat is ++ charismatic.

Model underpinning NH-CBT

Pre-disposing factors i.e., some persuasive reason to doubt the integrity of one's neurological system e.g., family history

↓

Belief that one's neurological system is vulnerable to damage, dysfunction, or disease

↓

Trigger – situation or body sensation consistent with above belief, strengthening that belief past a certain threshold

↓

Nocebo effect changes in neurological functioning creating physical symptoms

↕

Further strengthening of belief regarding neurological damage dysfunction or disease

What is a nocebo effect?

- Nocebo response was defined by Colloca and Miller (2011) as “the expectancy-induced changes in the patient’s brain-body unit”.
- This has been shown to produce changes in many neuroanatomical pathways, implicating many neurotransmitters.
- Mostly observed in the placebo arm of medication trials (i.e., side effects following ingestion of a sham pill).

What is a nocebo effect?

- Negative expectations have been shown to induce:
  - Pain (e.g., sham electrical stimulation producing headache)
  - Dry mouth
  - Visual problems
  - Constipation
  - Fatigue
  - Reported memory difficulties
  - Sexual dysfunction

- …also worsen Parkinson's disease symptoms (Benedetti et al., 2003). Classical conditioning is also a known driver of nocebo effects.

Nocebo effects – some findings

- 19% of healthy participants report adverse effects to nocebo medication
- 18% with migraine
- 52% with neuropathic pain
- 67% with fibromyalgia
- 71% with cancer
- 74% with multiple sclerosis

Nocebo effects – some findings

- Nocebo effects more common in:
  - Pessimistic people – glass half empty
  - Neurotic people – what if?
  - Type A personality (especially perfectionism)
  - ? Suggestible people, i.e ward experiences in Goal Setting.

(Data Franco & Berk, 2012)

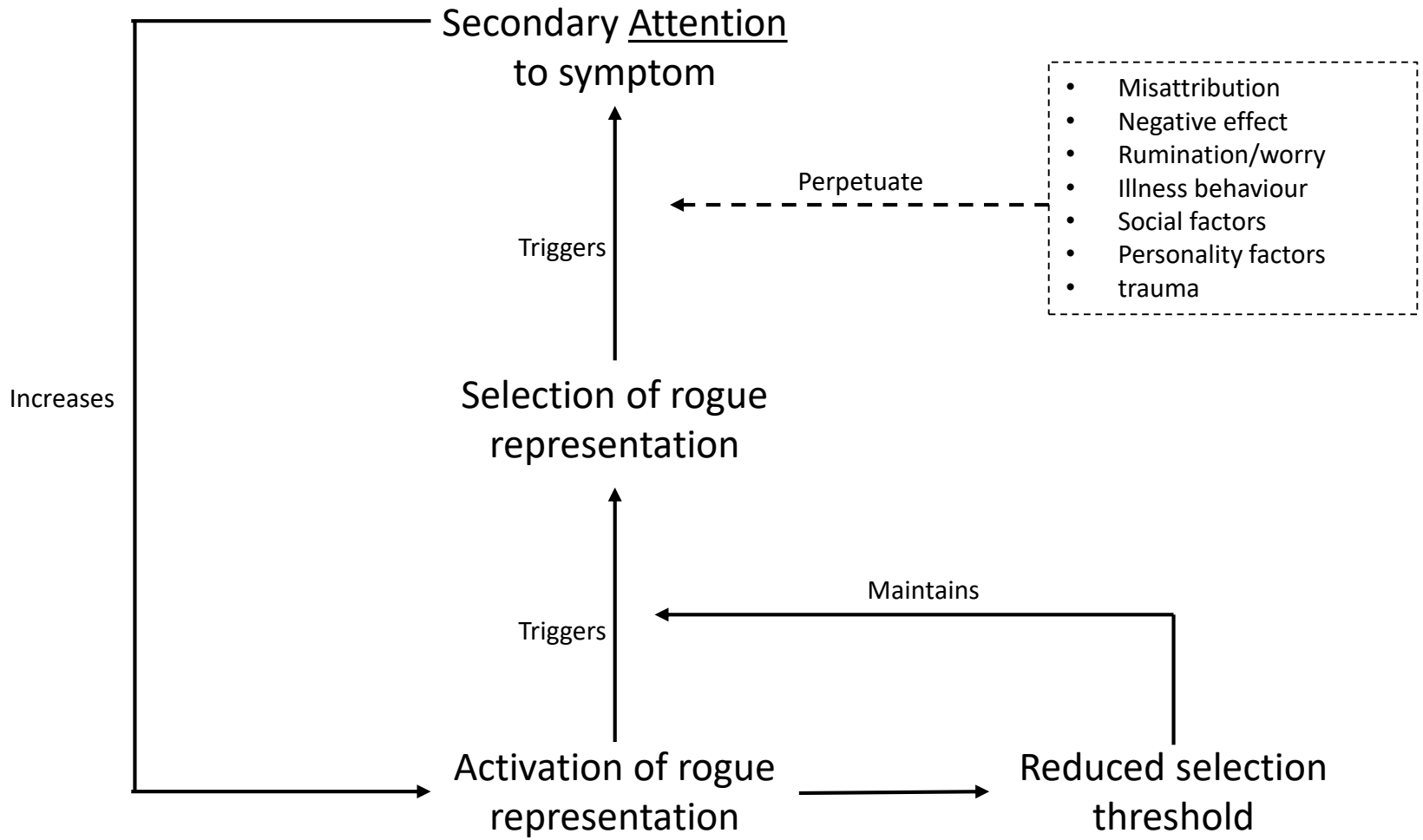
Core ingredients of NH-CBT

- Transparent sharing of the idea that some patient's symptoms are basically the same as a nocebo effect
- Varying attention to one's own body, and using video feedback to convince people that they are not neurologically damaged
- Conversation about emotions is completely optional
- 85-93% full remission of symptoms, across symptom types.

What does the research literature say? – Richard Brown

- 2004 – proposed an “Integrative Cognitive model”, trying to use available evidence to examine hypotheses around conversion, dissociation, and somatisation within a cognitive psychological framework
  - “top down” processing is important
  - A “rogue representation” is automatically activated

What does the research say? – Richard Brown



A 5 stage treatment

1. Understand the diagnostic evidence
2. Assessment
3. Transparent explanation of nocebo hypothesis
4. Treatment (different for each type of symptom)
5. Relapse prevention

Case One

1. FND Motor – KM

17yo, 2 month Hx of loss of sensation and movement in right lower limb

Extensive Neurological Investigation

Full assessment, surely there's trauma here somewhere!

Channelled my Mat Richardson, textbook explanation of nocebo good patient buy in.

Balloons, video lunges and biofeedback

Soccer practice++ as homework.

Lisa in Rockingham comments??

Treatment – Functional Motor Symptoms

- Your job is to prove to them that their bodies move better than they previously considered possible
- Set up an experiment, a treadmill is ideal:
  - Condition 1 – whilst trying to walk, notice **how terrible and wrong your body feels**, think about how to make every single step. Pump the + button if you can.
  - Condition 2 – put some headphones on with your favourite music, focus solely on the music (e.g., the vibrato of the voice, every hi-hat). Do not think about your body – “just do it”. Pump the + button if you can.
- Note the speeds achieved in each condition. Use a tablet to video each condition – show the client the results.
- Can use different distraction techniques

Case Two

1. FND PNES -BG
2. 56 yo, Vet Nurse - 1 yr HX of PNES/Dissociate Attacks, sometimes up to 2 x a day approx. 20 min.
3. Nocebo explanation with a twist, increase tremor in arm when feeling aura. Reinforced idea “that I’m in control of it rather than it being in control over me”.
4. PNES resolved by next visit.

Case Three

PCS – 17yo, LC

Very mild head strike, soft surf board – 2 days later, headaches at school, diagnosed as PCS by school nurse and reinforced by teacher and mother. Believed he was ++ neurologically damaged and was expecting 2 year recovery!

Great partnership with PCS Physio, emails and phone calls. Pt was ++attending to his symptoms and therefore maintaining his PCS. Treatment moved away from symptom monitoring and focused on function.

Discharged early to reinforce wellness narrative.

Case Four

1. FND Taste

Mother of two, 2 yr history of reporting no sense of taste. Trauma background, trauma symptoms had reduced with EMDR tx

Video task: Eat Vegemite and watch video filmed by kids (playful element). No reported sense of tasing Vegemite but face showed disgust on Video. Taste returned the next morning.

My Success Rate

Not 90% remission but trending in the right direction.

Focus on getting in early and preventing chronicity

Question: should people with FND be applying for NDIS?

Where I get it wrong

1. Rushing
2. Dissociation
3. Not having all the medical information
4. Waitlist

Allied health intervention

What can you do as allied health?

Create experiments that undermine the idea of being neurologically damaged.

Be bold and confident. Assume the Expert Position.

Reinforce the idea of a resolvable condition.

Work collaboratively with your psychology colleagues

Challenge the patient to rate their level of “unwellness” in the face of emerging evidence that is contra to their beliefs.