

## Simple practical recommendations for Physiotherapists: working with people following trauma

Note: These are in addition to other generic and specific cultural advice.

The brain and nervous system is *subconsciously* 'wired' to detect threat and initiate a body response to protect us. Following situations of threat, injury, stress or vulnerability this system is often on high alert for 'survival'. Our responses are based on many different factors including previous experience which is often retained in the body or non-verbal memory. Common physiological signs we are in 'survival mode' include:

- **heightened sensitivity** to sound/light/touch or being near others, especially new or unknown people or situations
- **increased arousal** for '*mobilization*'- high energy, agitation, heart/respiratory rate increase, visceral disturbances, muscle tension into a more closed, protective posture - 'fight/flight';
- **hypo-arousal** for '*immobilization*'- low energy, withdrawal, dissociative - feeling 'numb' or 'spacy'; can be high tone 'freeze' (such as catatonia) or low tone 'flop'; generally indicates a higher level of distress stress/trauma as this is a more 'primitive' response.

We may experience each of these depending on context.

'Survival' needs dominate higher brain functions of cognition, memory and problem-solving: it can be difficult to concentrate on simple tasks or complete daily activities.

### Practical strategies: Principles

- Some of these we may already instinctively use. With trauma, stress and anxiety we need to be intentional and deliberate in their use
- All of these can moderate response to threat, and the physiological arousal state
- Explore what 'fits' best for the individual
- Always monitor the person's verbal *and* non-verbal/physiological responses and adjust therapy accordingly; observe breath, forehead and eyes, eye contact, posture;
- Include these regardless of what part of the body is being treated
- Simplify expectations and home programmes, use handouts and repetition

**Safety** – this is a **treatment priority**; allow time; **social engagement** below is part of this too.

- *environment* – lower stimulus (visual, auditory); avoid low-frequency sound; ensure the room temperature is comfortable for the patient;
- *supportive positioning* – allow them to take their preferred position (may include the floor); to help the body feel 'held', supported, protected explore use of pillows/towels/blankets; K-tape may be useful, or dressing gown/towel /theraband around back and upper arms;
- *Autonomy* – as much as possible allow the patient to have a choice in the position and treatment options. Ensure the patient understands the purpose *and process* of the treatment intervention, especially with any components involving touch or manual therapy.
- *Predictability* – explain the process and recommended therapy techniques in detail as well as what to expect, including your position in relation to them; inform/consent before changing position (*especially* to be behind them – may need to avoid this)
- *Touch* – this may or may not increase the sense of safety – be alert to the patient's response. (Note: you may need to replace preferred hands-on technique with active/self-management techniques in the first instance)

### Social engagement:

- Ensure you use unforced eye contact (as able), a gentle voice with open/warm facial responses
- Position yourself at 45 degree-to-in-front (as trauma may reduce peripheral vision); preferably at same height or below; may need to be further away or closer than usual – monitor non-verbal response; position them to retain sight and access to the exit door
- Express compassion/kindness when validating or acknowledging their emotions

### Sensory awareness:

- Help them focus their attention to the present moment and sensations
- Integrate with whatever therapy you are doing - 'what do you *notice/feel* when you ... (pull your toes up, straighten your knee ... etc)?'
- Enable awareness of their own response ('interoception') – 'what does your body prefer?'

### Working with muscle tension:

- Activate muscle antagonists to the stress response i.e. facilitate use of anti-gravity/postural muscles, extensors, external rotators;
- Start distally (with feet/hands) – help them notice preferred muscle group
- Explore sensory/movement preference - rhythmic (repeated 'Open ...soften')? Inner range 'hold' then release? Resisted (e.g. using theraband);

### Breath

- integrate optimal physiological breath throughout intervention, or with specific attention;
- position to reduce use of accessory muscles;
- Note any breath hold (indicative of neural effort and stimulates sympathetic NS) – encourage release, gentle, soft
- encourage attention to 'out breath' - allow to soften/slow in order to stimulate parasympathetic / vagal response

### Physical activity:

- physical activity benefits anxiety, stress and low mood – encourage people to do as much as they can manage
- The patient may need social support to initiate physical activity due to any negative emotional association with aerobic activity;
- Resistance exercise can increase sense of empowerment
- Active/aerobic uses 'high energy' resources, and perfuses 'higher brain'/cortical regions;
- Small or large amplitude movement with attention to sensation for 'low energy' or calming.

### Sleep

- This is often disrupted after trauma/stress/loss and can compound their symptoms.
- safety, comfort and support are essential - it may be helpful to increase use of tactile and sensory strategies – *as above*;
- Best evidence generally for:
  - mind-body strategies - such as movement with gentle breath and mindful awareness of sensory aspects (support, muscles turning on/off, sounds)
  - physical activity and exercise