COUNTIES MANUKAU DISTRICT HEALTH BOARD
A Community Partnership

This patient is a mess!! Call the physio!

Sarah Mooney & Simon Kerr
Section Head Physiotherapists
Middlemore Hospital
CMDHB

- Spirometry (specifically FVC)
  - Can be as low as 30% of predicted in acute patients
  - VC falls by up to 6% when patient sat up and up to 45% when tilted towards standing

➢ *Can be helped by:*

- *Importance and relevance of spirometry*
- *Listening to the concerns of physiotherapists regarding the management and in particular, the deterioration of patient's respiratory status*

- Use of abdominal binder
  - Used to improve efficacy of respiratory muscles in increasing maximal expiratory pressure and forced vital capacity

Boaventura et al 2002

In a study of 10 patients with tetraplegia
Findings included:
- FVCs were higher in supine than seated
- MEPs and FVCs higher values in seated position with binder in situ

➢ *Can be helped by:*
- *Ensuring the binder is used and correctly placed*
- *Progressive training with approp handling, transfers and seating*
- *Involvement of the team and family*

- Teaching staff to
  - Handle and position safely and therapeutically
  - Apply abdominal binder and splints correctly
  - Co-ordinate rehabilitation and nursing Mx

➢ *Can be helped by:*

- *Nominated 'key worker'*
- *Establishment of a rehabilitation programme*
- *Co-ordinated approach by the MDT including dietitian, psychologist, OT, social worker, rehab team*
- *Provision of appropriate space e.g. use of tilt table, and privacy for patient ….. to work through the psychological elements aspects of their rehabilitation …..*

The patient with multi-trauma

- When does rehab start?
- What determines the chances of successful early rehabilitation?
- How do we deal with the more common challenges to rehabilitation?

Rehab starts here…

What determines their chances?

- Type and cause of the traumatic event
- Physiological condition. Pre-operative as well as post-operative
- Premorbid personality traits
- Psychological effects of the traumatic event and subsequent care
- Clear communication and an efficient MDT approach

Psychological trauma

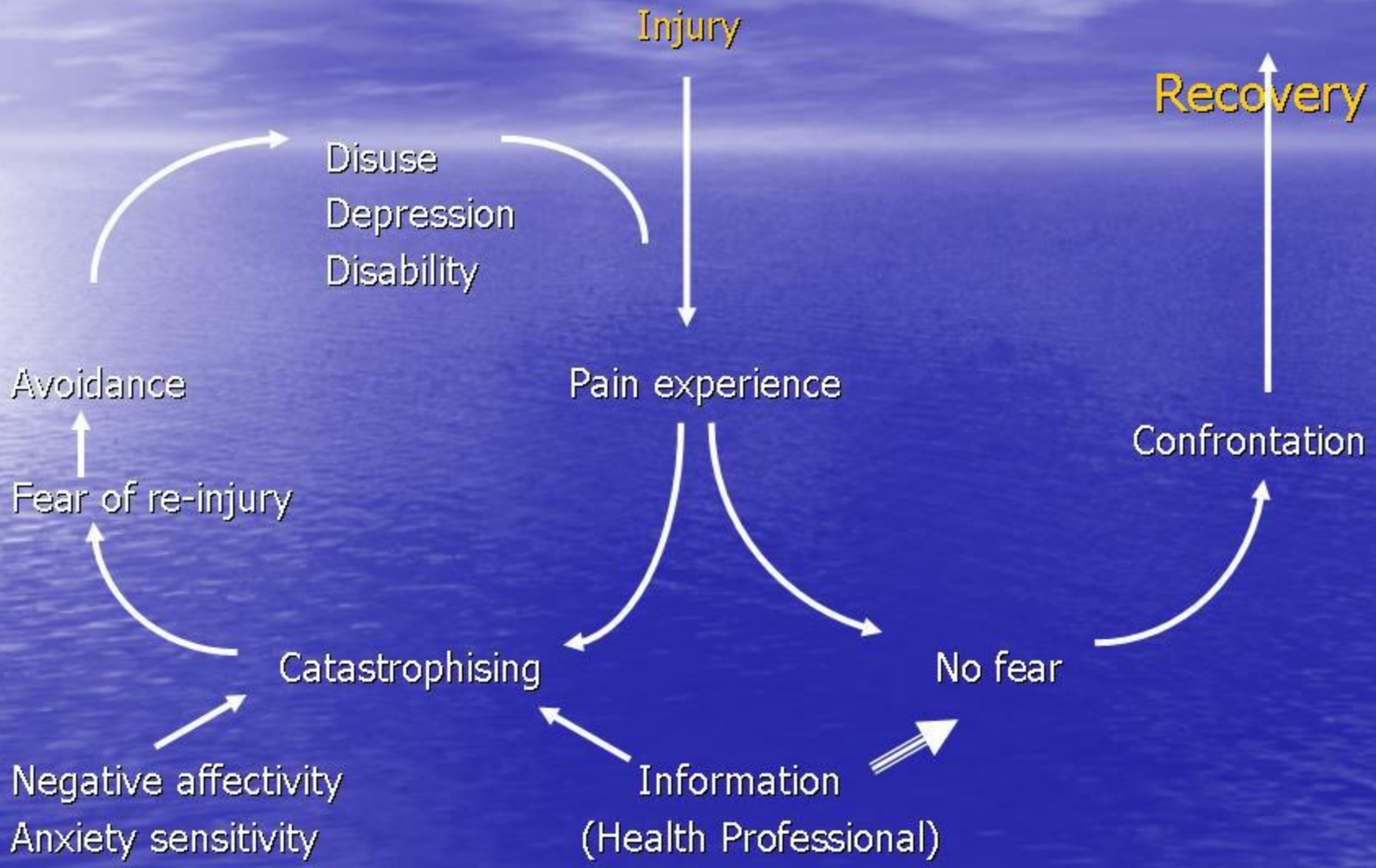
"The essence of psychological trauma is the loss of faith that there is order and continuity in life".

Prof. Bessel Vander Kolk

- Trauma occurs when one loses the sense of having a safe place to retreat within or outside oneself to deal with frightening emotions or experiences.

"The more frightening it was, the more severe the emotional symptoms". *Mayou & Farmer, 2002*

Model of Pain Related Fear



Vlaeyen & Linton, 2000

Kinesiophobia: the fear of movement

An excessive, irrational and debilitating fear of physical movement and activity resulting from a feeling of vulnerability to painful injury or re-injury.

Kori, Miller & Todd, 1990

" Fear of pain and what we do about it may be more disabling than pain itself"

Waddell, 1993

Aims of presentation:

- To appreciate the wider role of physiotherapy in ED and acute trauma
- To anticipate the future of physiotherapy in trauma and ED services
- To gain a greater understanding of the physical and psychological aspects of rehabilitation of the trauma patient

Treatment of kinesiophobia in the acute setting

- Prevention is better than cure.
- Clear communication
- Effective analgesia
- Graded "non-confirming" exposure to what they are afraid of.

In summary

- Psychological, behavioural and social factors are all relevant to the subjective intensity of the physical symptoms.
- The patient's disability may be greater than might be detected from the severity of the physical injuries
- The more frightening it was, the higher the likelihood of more severe emotional symptoms.

In conclusion

- Whilst our treatments are driven and modified by the physiological responses of our patients of equal importance are their psychological responses

- Treating a clinical condition may seem easy and straightforward but treating a person is never straightforward and we are always learning

It is essential to remember ....

- The best approach is an MDT one with a co-ordinated focus and clear communication.
- These 'messes' are challenging ... call the physio, we may have more to offer than you think!

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Thank you.

Sarah Mooney and Simon Kerr

Section Head Physiotherapists

Acute Allied Health

Middlemore Hospital

Counties Manukau District Health Board

Physiotherapy

- Physiotherapy is 'concerned with human function & movement & maximising potential'
  (CSP 2007)

- Within ED:

  Orthopaedic management
  - *Patients with falls, reduced mobility, fractures, sprains and strains etc*

  Respiratory management
  - *Patients with acute/chronic respiratory conditions, acute retention of secretions, HVS etc*

  General: *advice re handling and transferring of patients etc*

The future of physiotherapy

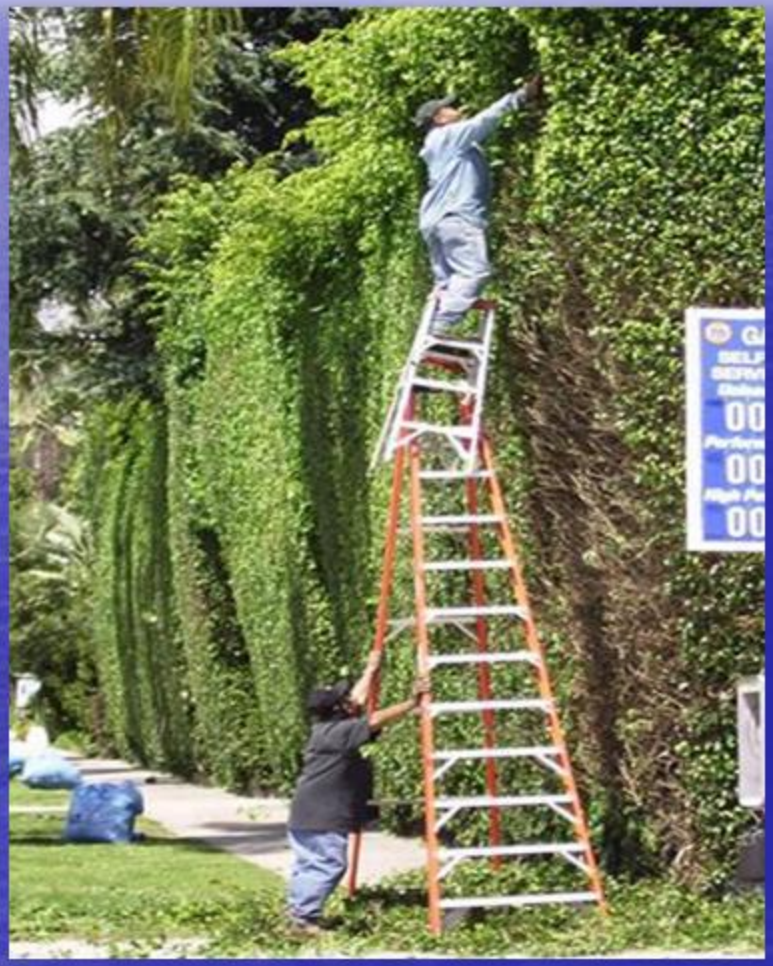
- International trends:
  - role of extended scope/specialist practitioner
    - *McClellan, Greenwood & Benger, 2006 (UK)*
    - *Walton, Crosby & Selfe, 2003 (UK)*
    - *Jibuike, Paul-Taylor, Maulvi et al 2003 (UK)*
  - 'front-house' physiotherapists
    - *Anaf & Sheppard, 2007 (Aus)*
    - *Woods, 2000 (US)*
    - *Croft, 2006 (NZ)*
  - 7 day services

This patient is a mess!

- The kinds of 'messes' or 'challenges' seen:
  - Spinal injuries
  - Acute +/- multi-trauma
  - Burns
  - Respiratory e.g. HVS
  - Patients with complex neurological conditions (eg bulbar palsy/MND + retention of secretions)

Causes of such messes:

- Patients: physical and psychological



- Staff: poor handling, experience, personally and professionally challenged
- Poor multi-disciplinary team approaches and communication between team members/teams/services
- Lack of involvement of the wider MDT e.g. social work

The patient with acute spinal injury

Rehabilitation starts from the moment of impact!

Respiratory, orthopaedic and pressure area …. and psychological ….. management

- **Positioning:**
  - to optimise respiratory function, muscle length, pressure area care and function

Copious secretions & pneumonia are independent predictors for mechanical ventilation

Claxton et al, 1998

- *Can be helped by:*
  - *Clear written instructions regarding degrees of elevation/flexion*
  - *Co-ordinated approach to rehabilitation*