

# When Pain Won't Go Away.....Then what?

An evaluation of Acceptance Commitment  
Therapy (ACT) in a pain management program  
using Program Assessment Tool (PAT)

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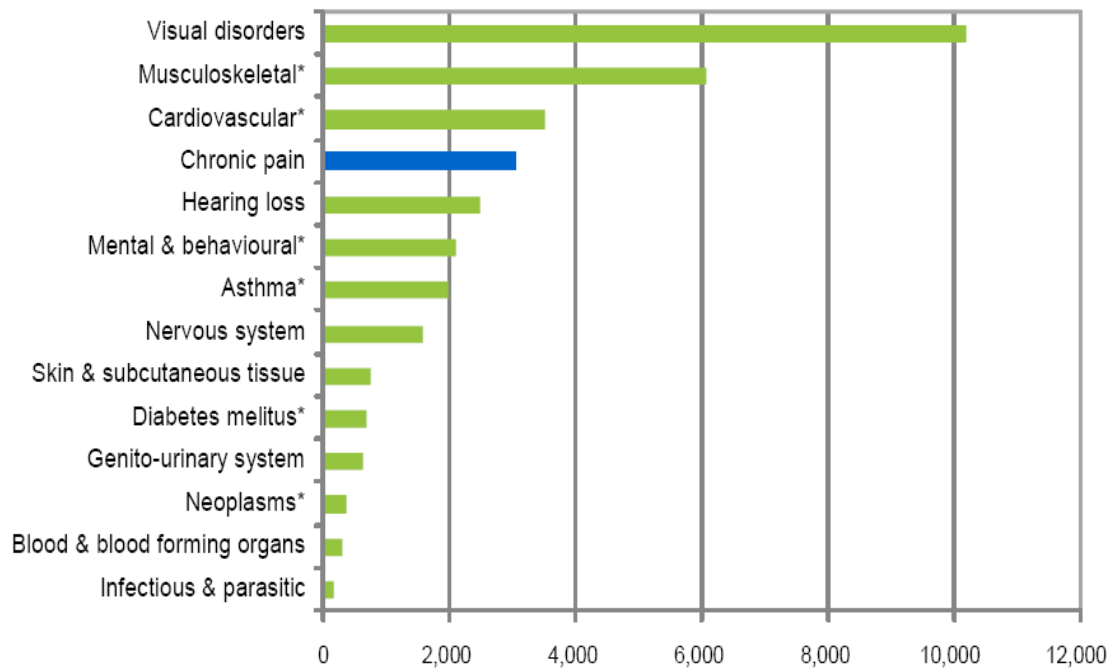
## The Burden of Chronic Pain

- Chronic pain defined as pain experienced every day for 3 months or more <sup>(2)</sup>
- It affects 1 in 5 Australians (19%) <sup>(1)</sup>
- Estimated to cost \$AUD 34.3 billion per year <sup>(2)</sup>

1. Blyth et al (2001). Pain, 89, 127-134

2. ACCESS-ECONOMICS (2007) The High price of pain: the economic impact of persistent pain in Australia.

## Prevalence Comparisons – Chronic Pain and Other Conditions, 2005



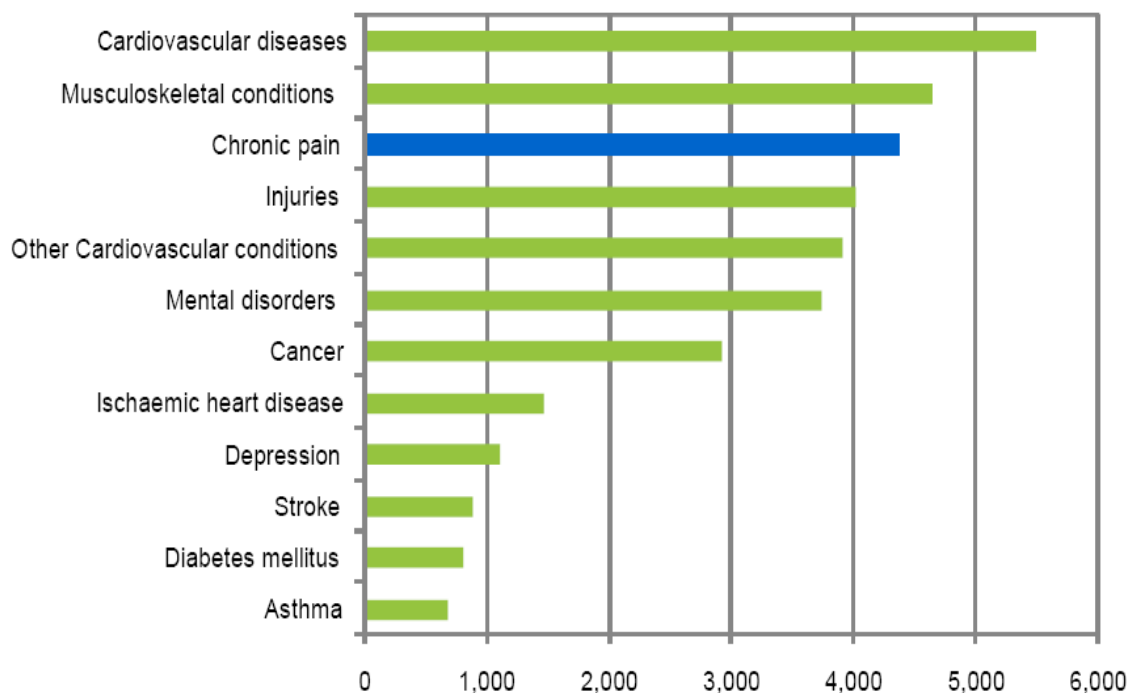
Prevalence (thousands of people).

\* National health priorities.

Source: Access Economics based on the Australian Bureau of Statistics (ABS) National Health Survey (NHS) 2004-05.

Note: Chronic pain, in addition to being a condition in its own right, is also an important component of NHPA conditions, for example cancer, musculoskeletal diseases and injuries.

## Health Expenditure Comparisons, Chronic Pain and Other Conditions, 2000-01 (\$ Million)



Source: Access Economics based on the Australian Institute of Health and Welfare - AIHW (2005).

Note: Chronic pain, in addition to being a condition in its own right, is also an important component of NHPA conditions, for example cancer, musculoskeletal diseases and injuries.

# Paradox of Pain Control Approaches

- Analgesic drugs
- NSAIDS
- Antidepressants
- Steroid injections
  
- Helpful in the short-term
- Not an effective long-term solution for chronic pain
- Can increase sensitivity to pain
- Have unacceptable side-effects

## The problem of control

- Dominates all of the patient's time and effort
  - Frequent doctor's visits, seeking the 'magic bullet'.
- Narrow solutions "I have to control my pain before I can...."
- People become further removed from experiences and activities that give their life meaning.
- Life becomes restricted.

## Psychological approaches to managing pain

- Cognitive Behavioural Therapy (CBT) – assumes primacy of cognition in mediating pain related distress.
- Assumes that changing negative content of thoughts and beliefs about pain will lead to reductions in pain behaviour and distress.
- Expectation is symptom reduction.

## Limitations of CBT interventions

- Effective in the short-term, but long-term – patients frequently relapse. Why?
- Intractable nature of chronic pain automatically activates negative mental scripts about pain = negative affect.
- Distraction and cognitive restructuring focuses attention toward the very cognitive or sensory experience one is trying to avoid.
- The mind's radar always increases the perception of 'threat'. Pain becomes more intolerable.

# What do you do when you cannot control the uncontrollable?

- Acceptance Commitment Therapy (ACT) for Chronic Pain

## ACT

ACT is a

- Mindfulness based
- Values directed
- Behavioural therapy

Objective is:

- to create a rich and meaningful life, while accepting the pain that inevitably goes with it.

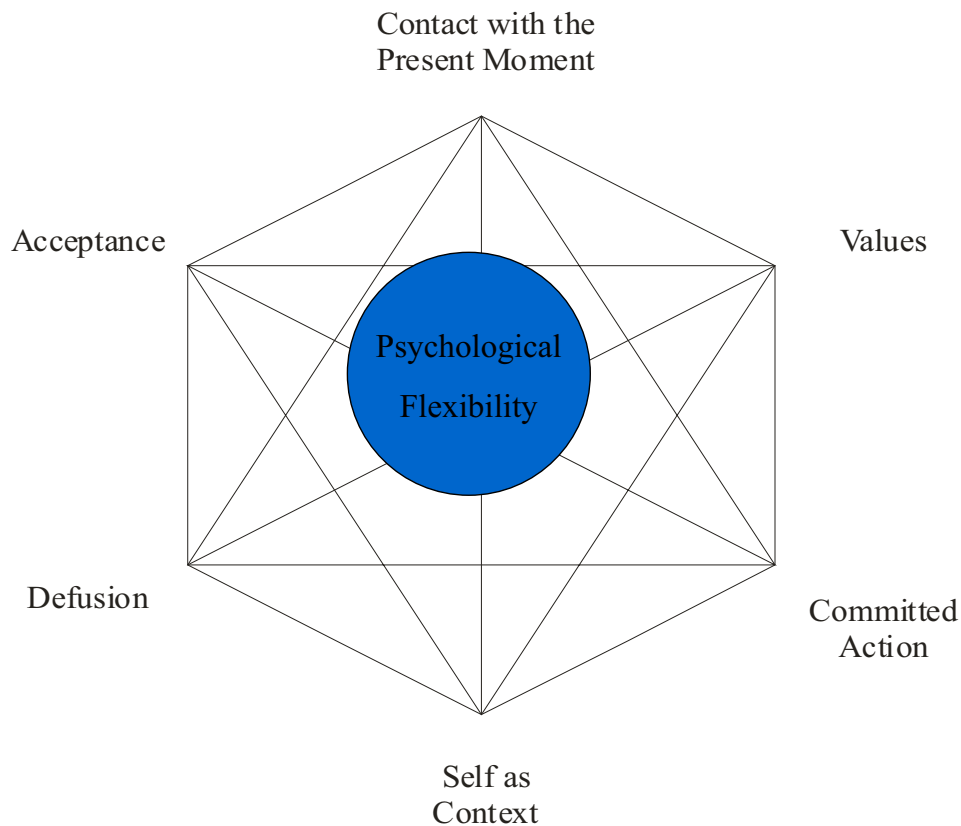
# Core processes in ACT

- Mindfulness involves non-judgemental awareness of the present moment.
- Mindfulness practice allows clients to approach previously avoided thoughts feelings and physical sensations of pain in a non-reactive, non-judgemental way.
- Changes perspective to observe what is, not what our minds interpret it to be.

# Values in ACT

- Clients stuck in chronic pain are mostly active in the unfulfilling struggle of reducing pain rather than living a life of their choosing.
- Pain becomes the 'reason' why patients don't pursue valued activities: Associated with increased disability
- Values are different from goals
- Values are a 'choice'
- The question to ask clients: 'Which master do you serve?'

# The Primary ACT Model of Treatment



## Evaluating ACT within a Multidisciplinary pain program

- Relying on statistically significant change between admission and discharge scores tells only part of the story.
- Non-significant findings could be attributed to low numbers, patient characteristics or efficacy of the program.
- Cannot tell what components of the program were successful by only measuring change between admission and discharge scores?

# Program Assessment Tool (PAT)

(Treonic, 2007)

- In 2007, we implemented PAT© program
- The methodology combined the education process (in this case ACT) with epidemiological techniques and online IT infrastructure to create an end to end approach to program development, delivery and assessment.
- Assessed difference between pre- and post-outcome measures.
- Rated patient perceptions about level of importance of selected outcome deliverables, level of achievement, and life difference?
- Program deliverables were linked to values.

## PAT Program Deliverables

- MDT defined education program outcome deliverables using PAT methodology.
- Information obtained from past patients' program expectations was also used to help define the program deliverables.
- A final list of 22 program deliverables helped form the focus of the education information sessions for the patients.

## Program outcome expectations under value domains of:

- Health/physical wellbeing
- Education/personal growth and development
- Social network/friends
- Family relations
- Employment /career

## Preliminary outcomes using PAT in assessing efficacy of ACT

### METHOD

- 41 patients attended one of 6 full-time pain management programs run between February 2007 and February 2008.
- Programs ran for two weeks, Monday to Friday between 9.00 am and 3.00 pm.
- Average age was 44 years (range 23-70 years)
- 61% (25/41) were female
- 39% (16/41) were male
- 21 patients have completed 4 month follow-up.

# Program Assessment Tool (PAT)

- Patients selected 6 expectations from a pre-defined list of program deliverables they wanted to achieve by doing the pain management program.
- The PAT was filled out at the beginning of the program, 1-month, 4-months and 8-months following the program.

## Other Psychological Measures

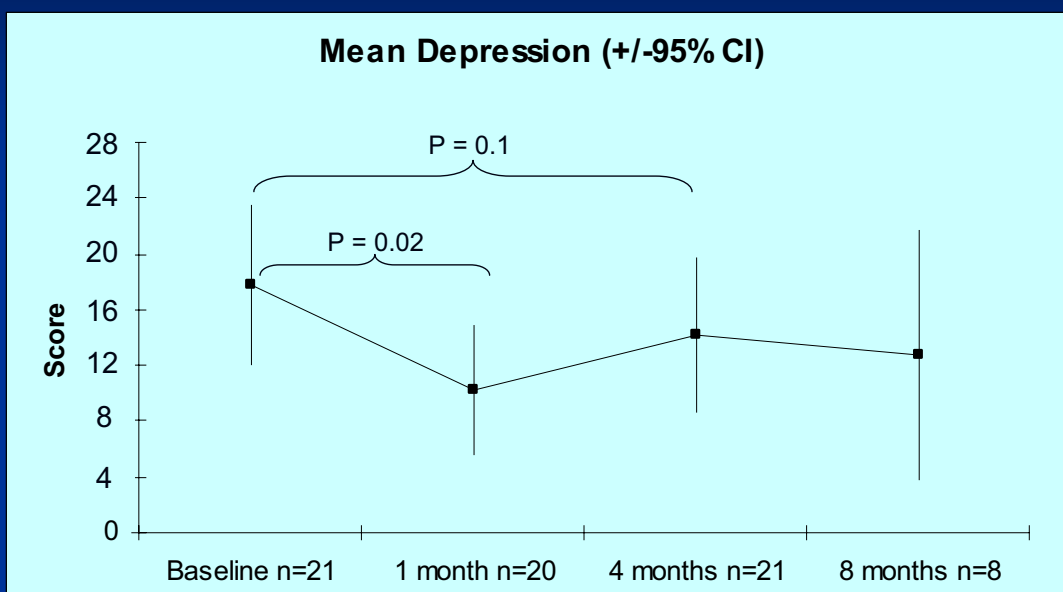
- Depression, Anxiety and Stress Scale (DASS21)
- Pain Self-Efficacy Scale
- Pain Catastrophising Scale
- Fear Avoidance Beliefs Questionnaire
- These questionnaires were also completed at the beginning of the program, and again at
- 1-month, 4-months, and 8-months post-program.

# RESULTS

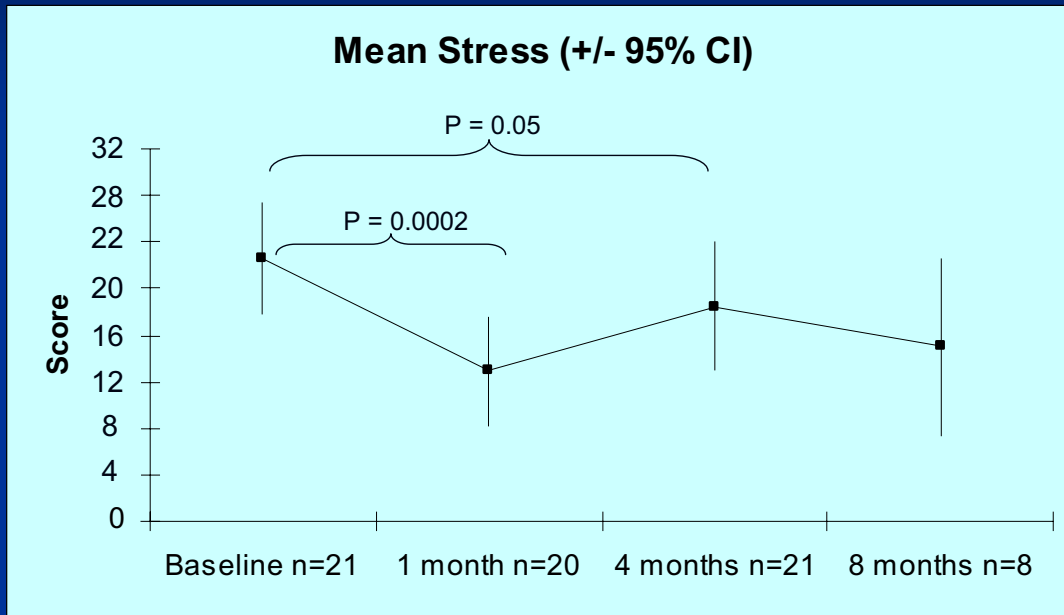
Baseline psychological characteristics of patients (n=41)

Indicator	Normal (%)	Mild (%)	Moderate (%)	Severe (%)	Extremely Severe (%)
Depression	26.8	7.3	22.0	9.8	34.1
Anxiety	26.8	7.3	17.1	7.3	41.5
Stress	36.6	12.2	17.1	17.1	17.1
Helplessness	-	34.2	31.6	26.3	7.9
Magnification	13.2	36.8	21.1	18.4	10.5
Rumination	10.5	15.8	36.8	23.7	13.2
Self efficacy	17.1	26.8	31.7	19.5	4.9
Pain intensity	-	3.4	72.4	24.1	-
Fear avoidance	-	20.7	31.0	27.6	20.7

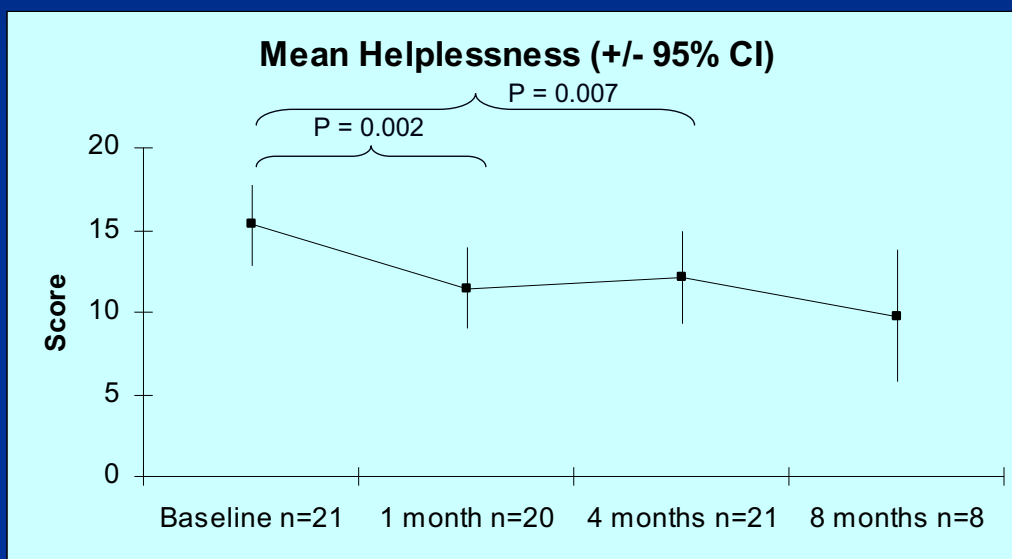
## Depression



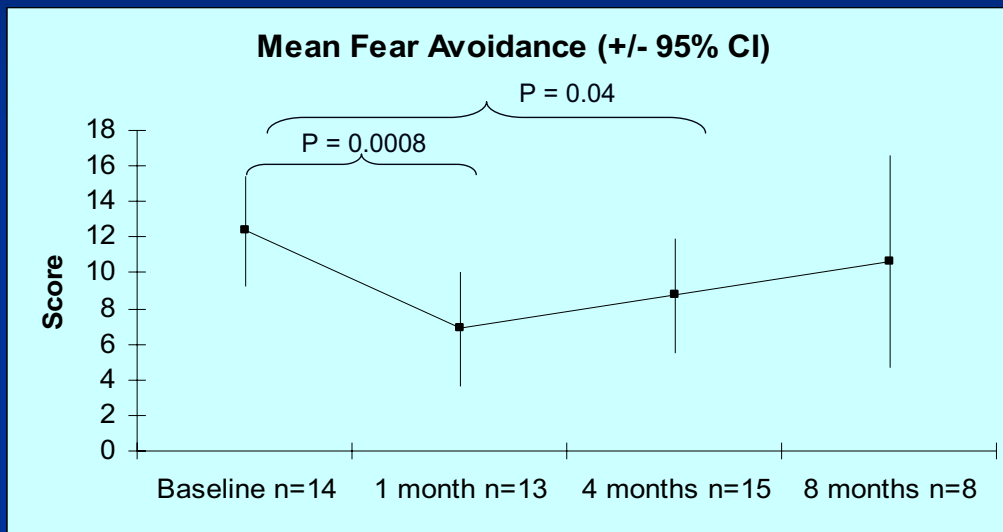
# Stress



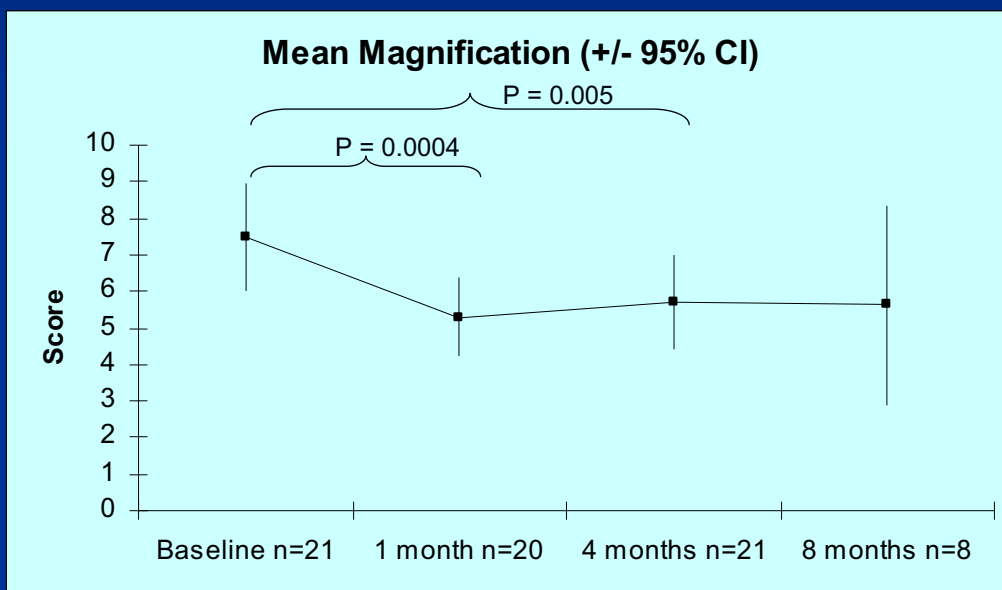
# Helplessness



# Fear Avoidance



# Magnification



# Other results

At one month:

- Anxiety  $p = 0.007$
- Rumination  $p = 0.004$
- Self-efficacy  $p = 0.0001$

## Patient Deliverable Choices

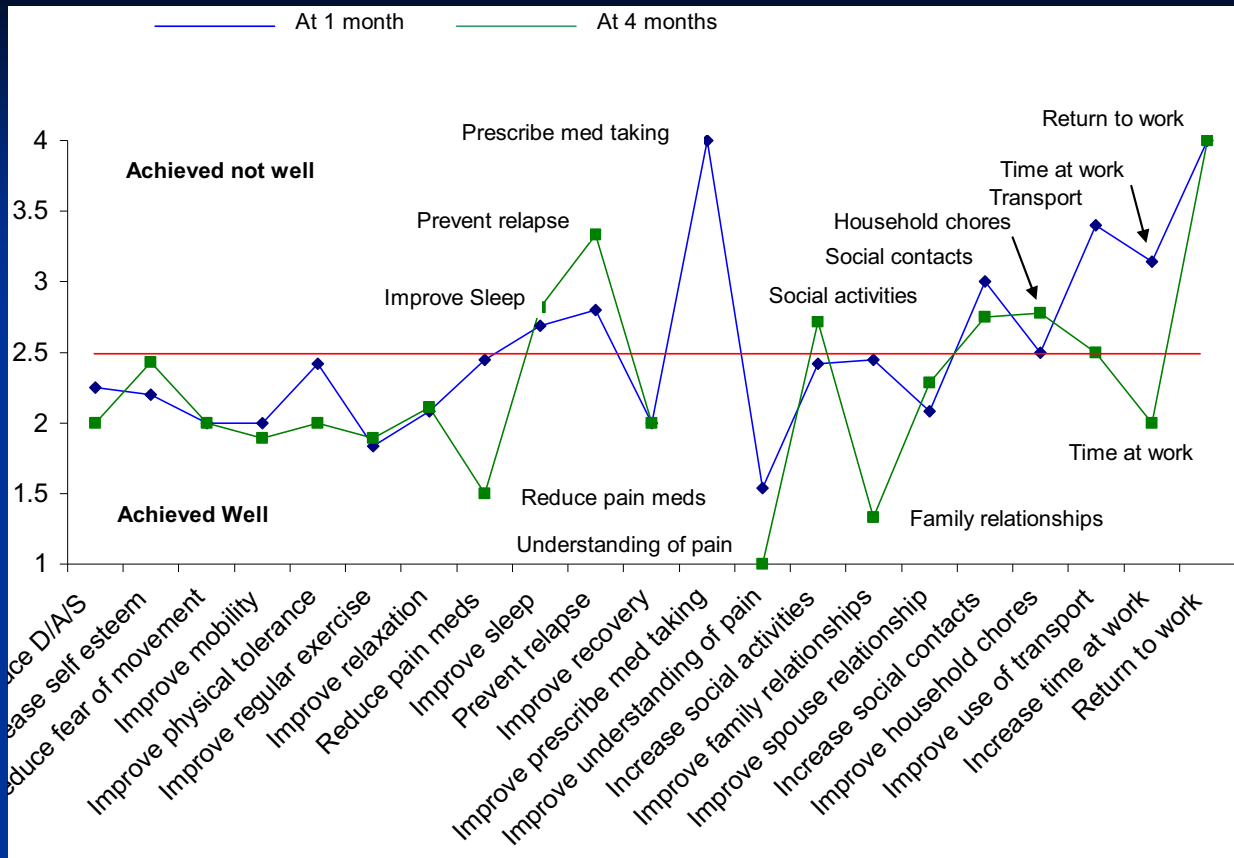
### TOP FIVE EXPECTATIONS

1. Reduce depression, anxiety and stress
2. Improve mobility
3. Improve ability to exercise
4. Improve ability to sleep
5. Increase self-esteem

### LEAST SELECTED EXPECTATIONS

1. Improve ability to self-care
2. Take medication as prescribed
3. Enter the workforce
4. Improve use of public transport
5. Improve social contacts

## Summary of Deliverable Outcomes at 1 & 4 months



## Program review based on PAT results

- PAT was able to improve and refine the MDT program in three ways:
- Removal of a deliverable – e.g. enter the workforce
- Modify the education session to improve likelihood of deliverable being achieved – e.g. sleep.
- Change expectations of what can be achieved – e.g. cannot prevent a relapse.

# Summary of ACT outcomes

- Pain management program at the Canberra Hospital is having a positive outcome on patient's ability to live with pain.
- Focus shifted from expectation of elimination of pain to pursuing valued directions with pain as a secondary concern.
- Patients were more tolerant of pain – as patients were reporting a reduction in the use of pain medications at 4 months.
- Results support decreasing levels of helplessness, magnification of pain, stress and fear avoidance.

## Summary of ACT outcomes cont.

- Pain hadn't changed but patients reported being less fearful and more accepting of pain.

Valued life directions patients reported being more active in:

- pursuing new careers
- increasing their time at work.
- pursuing leisure interests
- engaging in regular exercise

All of which had been previously avoided or put on hold in attempts to eliminate pain

# PAT Conclusions

- Outcome measures, while important, do not identify where the program is working or not working, and how to improve it.
- Simply measuring patients' changes in psychological and functional states is not action oriented.
- Relying on patients' comments is fraught with issues of bias.

# PAT Conclusions cont.

- PAT has provided clear quantitative evidence to help identify components of the program that need action and what type of action.
- Focus of PAT shifts the blame from the patient (attainment of goals) to how well the program achieves in delivering learning outcomes.
- Provided a framework to answer the team's questions, identified patients' achievements and areas of concern.
- Allows for constant and ongoing evaluation of the program.
- Finally, this process has highlighted the importance of looking at values as opposed to goals – this has been a fundamental shift in our program.

■ Questions?