

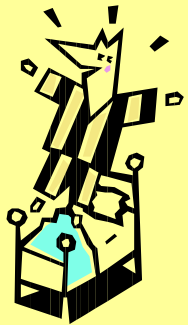
Aches and pains – managing the child who presents frequently with somatic symptoms

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David aged 11 years presents with abdo pain and fatigue

- 12 month history of intermittent central abdominal pain, viral infections
- Missing school or spending day in sick-bay
- Academically able, in accelerate class at school, but worried about how he will catch up now that he has missed so much class
- Gets in trouble at school for talking, few friends

- Duodenal atresia at birth, prolonged hospitalisations, colostomy reversed 18/12
- Perceived by mother as ‘sickly’
- Abdominal pain started 1 year ago
- Surgical review – Pseudo-cyst of spleen
- While awaiting surgery ‘could burst’
- Splenectomy 8/12 ago – pain and fatigue continued

On examination

- Healthy looking 11 year old boy
- Anxious about possible abdominal pathology and that ‘something else might go wrong’
- Very fidgety during interview, short attention span
- His weight, bowel habit, abdominal examination, FBC and ESR are normal

Peter aged 11 presents with low mood, weight loss, and abdo pain

- Lives with father in disadvantaged conditions. No contact with mother.
- Close family friend committed suicide 3 months ago
- Father low in mood, poor physical health and chest-pain
- Peter worries++ about his father and neither has been eating well (quantity or quality)

On examination

- Peter seems very low in mood, withdrawn, flat affect, and is worried about his father
- Peter has lost 10kg and has a mild Fe def. anaemia, but the rest of the physical exam is normal

Hilda aged 11 years

- Several presentations to Emergency Dept with abdominal pain, nausea, and fatigue
- Previous episode recurrent abdominal pain aged 8 years – settled after 4 months
- This episode followed severe ‘gastrointestinal flu-like illness’ 5 months previously

- Lives with mother and older sibling
- Bullied by classmate previous year – shifted to new school, good friends
- Has attended little school for past term due to fatigue
- Witness as pre-schooler to terrifying domestic violence. Court ordered access only ceased 18 months previously
- Mother – perforated retro-caecal appendix, peritonitis aged 10 years

On Examination

- Pale, silent and uncommunicative, reluctant to talk about past experiences.
- Denies current worries or concerns other than fatigue
- On specific questioning acknowledges flash-backs of early traumatic experiences
- General physical examination, abdominal examination, FBC unremarkable. Has lost 5kg.

Alice aged 9 presents with lack of energy and headaches

- Her mother is dying with an inoperable brain tumour, and is being nursed at home
- Alice and her father are very sad, and Alice is not coping as well at school, does not join in with friends at lunchtime
- Alice's father thinks Alice's headaches are due to the stress and grief that the whole family is experiencing

Who has what?

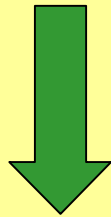
- David
 - Somatoform disorder, mild anxiety, probable ADHD
- Peter
 - Crohns Disease, adjustment disorder
- Hilda
 - Somatoform disorder (Chronic fatigue), PTSD
- Alice
 - A.L.L. and normal childhood grief

Community studies of somatic symptoms in children/adolescents

- Campo and Fritsch 1994 (review)
- Frequent headaches 10-30%
- Recurrent abdominal pain 10-25%
- Limb pain 5-20%
- Fatigue 15% daily
- Pseudo-neurological symptoms rare

Continuum

- Everyday aches and pains



- ‘functional symptoms or MUPS’



- Somatoform disorders

Children who frequently complain of aches and pains -

- have more psychosocial problems
- miss more school
- do worse academically
- use higher levels of ambulatory healthcare
- have higher levels of internalising sx
- are perceived as being less healthy by parents

(Campo et al 2002)

Recurrent abdominal pain - RAP

- 10 - 30% children
- 3 or more episodes affecting activities over 3+ months
- may lead to significant functional impairment
- follow-up shows persisting RAP, functional disability, and increased healthcare use

Evidence of psychological factors

- Onset after specific trauma or stress
- Disability or handicap out of proportion to reported pain
- Clear secondary gain from the pain
- Exacerbations predictably linked to stressful events

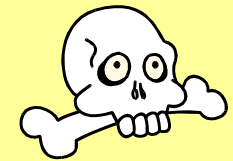
(Fritz et al 1997)

In children and adolescents we see:-

- Medically unexplained physical symptoms or ‘MUPS’
- Pain disorders/syndromes
 - complex regional pain, RAP, fibromyalgia, irritable bowel, chronic headache
- Undifferentiated somatoform
 - Chronic fatigue syndrome (CFS)
- Conversion disorder
 - pseudoseizures

Psychological models for recurrent pain

- Family health beliefs: pain = serious disease
 - significant family history of illness
 - pain disorder, somatisation, serious illness
 - Child perceived as vulnerable history of previous illness or life threat
 - Modelling/social learning



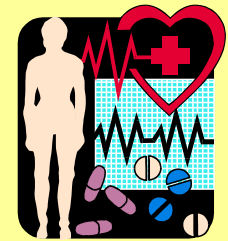
Psychological models for recurrent pain

- Secondary gain leads to perpetuation of symptom – ‘operant conditioning’
 - Avoidance of stressful situations (school, bullying, achievement pressure)
 - nurturance and ‘specialness’



Psychological models for recurrent pain

- Somatosensory amplification – ‘classical conditioning’
 - normal bodily sensations misinterpreted by anxious child, become a trigger for pain
- Somatisation as an unconscious psychological defence
- Family systems theory



The child

- Pre-existing vulnerabilities
 - previous illness
 - temperament
 - social competence
- Co-morbid psychiatric disorder
 - anxiety/depression in 1/3



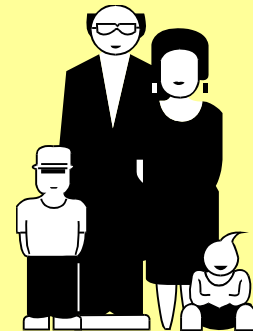
The child cont.

- Extremely high achieving
 - perfectionistic, overcompliant
 - high achieving
 - afraid of failure
- Precipitating minor injury or illness
 - viral illness
 - strain or sprain



Psychosocial Stressors

- No convincing evidence of increased stressor levels in children with recurrent abdominal pain (Walker, Green 1991), but -
 - Chronic pain is a potent stressor in itself
 - Families may deny the importance of existing stressors



Potential stressors

- Within the family
 - Death /illness in family member
 - marital disharmony
 - financial/job difficulties
 - abuse and neglect



Potential stressors

- Peer Group
 - social isolation
 - teasing and bullying
- Academic
 - pressure to achieve
 - transition to secondary education
 - learning disability
 - areas of excellence



Good history of:-

- Presenting complaint
- past medical history
- developmental history
- child's temperament and emotional/behavioural state
- child's functioning in school, peer, family
- abuse neglect
- family stressors, medical and psychiatric hx
- current level of function and disability

Depression

- Persistent sad or irritable mood
- Loss of interest or enjoyment in activities
 - Difficulty sleeping or oversleeping
 - Substantial change in appetite or body wt.
 - Difficulty concentrating
 - Loss of energy
 - Psychomotor agitation or retardation
 - Feeling worthless or inappropriate guilt
 - Recurrent thoughts of suicide or death

In depressed children and adolescents

- **Irritability** often more prominent
- Symptoms more **unstable** – may have a ‘good’ day, or retain some isolated interest
- **Somatic symptoms** prominent in children and in those with co-morbid anxiety as well as depression
- **Hopelessness** an important prognostic sign for suicidal ideation and attempts

Anxiety Disorders

- **Separation anxiety** - developmentally inappropriate and excessive anxiety concerning separation from parents and home
 - Fears of things that could threaten integrity of family
 - School Refusal common
 - Often demanding, intrusive and in need of constant attention, especially when anxious
 - **Often have somatic complaints especially on school days or when facing separation eg bed-time**

- **Panic disorder**

- Less common in children, see more in adolescents
- Symptoms similar to adults, somatic

- **Generalised anxiety**

- ‘worry-worts’ worry about everything eg volcanoes, tidal waves, pandemics, family finances, school tests, birthday parties etc

A thorough physical examination

- Investigations as indicated by
 - Age and stage
 - Symptom profile
 - Physical findings



Assessment is part of management in medically unexplained symptoms

- Alliance building from the start
 - Eliciting and respecting child's and family's concerns
- Avoiding either/or approach in history and investigation
 - acknowledging the importance of both physical and psychological factors

Approach to child and family - psycho-education

- Epidemiology of recurrent pain in children
- Education about pain and physiological factors
 - acute injury response vs.
 - chronic pain response – pain switch stuck on ‘on position’
 - Close relationship between stress/worries and physical effects on the body eg HR + BP
 - effects of immobility, poor sleep, reduced food

Approach to child and family - presenting findings

- **Reassurance** that examination/investigations show no evidence of serious or nasty pathology eg tumour, infection, fracture.
- Use knowledge elicited in history to address **particular concerns**
- **Avoid** using terms like ‘not real’ or ‘psychological pain’ or ‘all in his head’ or ‘get thee to a shrink’

Approach to child and family - presenting findings

- Reassure the child and family that the pain/symptoms are **genuinely felt**, and that you will be working with them to improve symptoms etc
- MUPS (pain, nausea, fatigue etc) usually a **complex interaction** of physical, social and emotional factors
- Acknowledgement of the **strengths** of child and family, efforts to date to resolve pain

Approach to child and family - presenting management

- Optimum treatment is **symptom management and rehabilitation**
- Will take **time** and consistent effort
 - no instant cure/disappearance of symptom
 - learning to manage and live with symptoms in order to return to enjoyable and important activities
- Importance of **teamwork** - child, family, health team, school

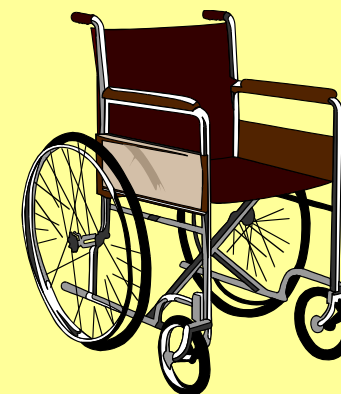
Treatment planning

- Baseline information maybe useful
 - keeping a daily diary of symptom frequency and severity
 - activities, social contacts, sleep
 - school attendance
- Goal setting for child and for family
 - realistic, small graduated steps
- Expect minor ‘hiccups’ or setbacks



Combined psychosocial approach

- Combined psychological and physical therapies
- Rehabilitation focused on
 - increasing independent function
 - increasing adaptive problem solving skills
 - addressing any specific problems
 - normalising activities

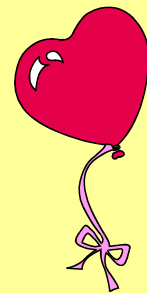


This might involve:-

- Pain behaviour regulation
- Pain perception regulation
- Physical therapy
- Treatment of anxiety or depression
- Wider educational or social environment management
- Pharmacotherapy

Pain/symptom behaviour regulation

- Aimed at decreasing 'pain' behaviours and increasing 'well' behaviours
- Use **extinction** - ignoring of complaining, wincing, crying (reduce secondary gain for symptoms)
- Use **positive reinforcement** of well behaviours - praise, positive attention, puppies, outings



Gradual normalisation of child's program

- Encouraging the child to take more responsibility for symptom management
- Normal household rules
 - eg no daytime TV watching, doing share of chores, normal bed-times
- Parental limit setting re unacceptable behaviour
 - Tantrums, rudeness to siblings
- Negotiating realistic goal setting
 - eg 2 hours at school each morning



To do this you need -

- Parents to be actively accepting of rehabilitative focus
- Focus on observable behaviour rather than subjective reports of pain level



Parents may need help with

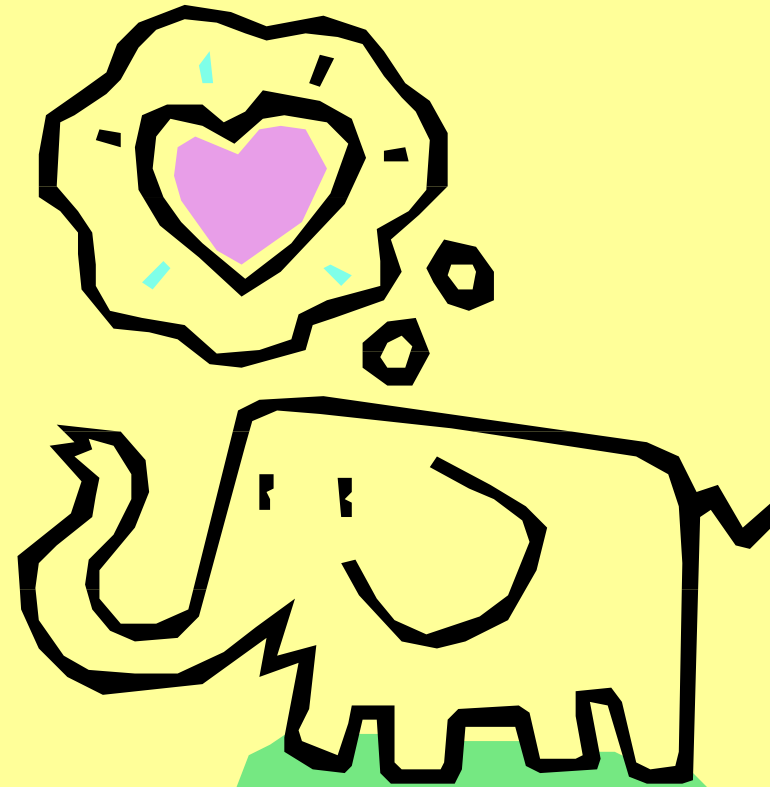
- Assessing when a symptom is serious enough to stay home from school
 - Eg no fever and no vomiting
- Quick check by the practice nurse then off to school
- Brokering an agreement with the school
 - Eg that the child stay at school even if complaining of symptom



Pain perception regulation



- Cognitive behavioural strategies
 - giving child a routine for modifying subjective pain/symptom experience
- distraction
- relaxation and breathing
- guided imagery
- self-hypnosis
- biofeedback



Cognitive behavioural strategies

- Effective in children with anxiety, pain syndromes, adolescent depression
- Requires active engagement of the young person
- With children adapt the CBT strategies by ‘externalising’ the problem, and using engaging imagery.

Cognitive behavioural therapy

- Most programmes include
 - ‘**cognitive restructuring**’ recognising habitual negative interpretations and replacing them with positive
 - ‘**activity scheduling**’ doing enjoyable things to improve mood
 - **problem solving**
 - **relaxation training**
 - **conflict resolution**

CBT continued



- with pain this might involve
 - Teaching relaxation/distraction
 - Positive self statements about pain recovery
 - Scheduling in increasing activity levels and pleasurable things
- with anxiety this might involve
 - modelling overcoming fears – books, videos, friends
 - teach relaxation, controlled breathing
 - hierarchy of feared situations eg own bed at night
 - exposure using imagination then actually doing it



A quick relaxation exercise

- Loosen your clothes and get comfortable
- Tighten the muscles in your toes and hold for a count of 10. Relax and enjoy the feeling of release from tension.
- Start with toes and move up through the other muscles in thighs, hands, shoulders, eyes, and jaw. Tighten then relax each group of muscles

A quick relaxation exercise

- Feel the tension flowing out of your body as you move up your body
- Focus on slow gentle breathing using your diaphragm (tummy breathing). Breathe in for 3 seconds, out for 3 seconds. Say the word 'relax' to yourself as you breathe out.
- Imagine yourself somewhere peaceful and relaxing.

Relaxation for kids 'tummy breathing'



- Imagine you have a balloon in your tummy
- Put your hand on top of your tummy
- Breathe in slowly through your nose, counting to 3 and feeling the balloon fill with air
- Breathe out slowly through your mouth, counting to 5 and feeling the balloon go flat. Imagine that the pain/worry goes out of your body as you breathe out.
- Notice how your muscles relax as you breathe out. Imagine a picture of your muscles relaxing.

Problem solving (RIBEYE)



- **Relax** first!....breathing
- **Identify** a problem or difficulty and describe what happens around it
- **Brainstorm** - think/write down of all possible solutions (including the crazy ones!).
- **Evaluate** - write down the pros and cons of each solution
- **Yes** -select the one that seems the best and trial it
- **Evaluate** - choose another if necessary

Problem solving

- Important always to set a time to review how this strategy is working
- Trial another solution if the first one was not successful

Sleep problems



- Establishing a sleep routine
 - maybe gradual process
- avoiding activating activities at bedtime
 - eg texting, internet, computer games
- relaxing routines to assist sleep
 - relaxation exercises, guided imagery, quiet music
- reducing daytime sleeping or resting
- pros and cons of sedatives



Physical therapy



- Graduated mobilisation
- Specific exercises targeting increased movement and functions in affected area
- May need to involve community physio
- General exercise and fitness training
- Hydrotherapy - swimming



Treating co-morbid psychiatric problems

- **For the young person with depression**
- **Immediate referral** to secondary care mental health services for anyone who has
 - Serious suicidal intent
 - Psychotic symptoms
 - Severe self neglect
- **Urgent referral** to secondary care for
 - Severe depression
 - Suspected bipolar disorder

Depression

- Mild to moderate initially managed with
 - Active listening
 - Problem identification and simple problem solving
 - Simple self-management – exercise, activity routines, good sleep (thelowdown.co.nz is a good resource)
 - Enlisting/strengthening other supports eg family, SGC
 - Regular review 1-2 weekly
 - May need active management of somatic symptoms and rehabilitation as well
 - Promising computerised/web-based CBT programs

What next

- If worsening, or no improvement after 6 weeks refer to secondary care mental health
- Antidepressants
 - On advice of child and adolescent psychiatrist for moderate to severe depression
 - Fluoxetine has best evidence base in young people
 - Start low with 5-10 mg mane **after** food, ↑ to 20mg
 - Must warn about early increase in anxiety/agitation and in suicidal ideation. Family and GP monitoring important
 - No evidence of increased suicide with fluoxetine

Anxiety

- Simple behavioural and cognitive strategies
 - Parents must be on board – may themselves be anxious
 - Simple relaxation
 - Graduated exposure to things the child is anxious about
eg return to school, sleeping in own room
 - Parents caring but firm
 - Treatment of co-morbid depression helps in adolescents
- Resources include ‘Coping Cats’, ‘How to help your anxious child’, RTLBs for school refusal

Useful web-sites for young people with depression or anxiety

- www.thelowdown.co.nz
- <http://moodgym.anu.edu.au>
- <http://ecouch.anu.edu.au>
- Beyondblue website in Australia



Addressing current stressors in the family

- Parental mental health problems
- Marital conflict, domestic violence
- Too busy to spend adequate time with the child
- Wider family issues



Pharmacotherapy



- Regular paracetamol or NSAID
- Low dose amitriptyline (10-20mg nocte) has demonstrated effectiveness in chronic pain + night-time sedation
- Specialist pain/symptom medications
 - Newer anticonvulsants for neuropathic pain
 - clonidine transcutaneous patches for neuropathic and central pain
- SSRIs for severe depression/anxiety

Other people who may be helpful

- Within the practice
 - Practice nurse
 - Practice psychologist
- School system
 - School guidance counsellor, dean, nurse
 - RTLB resource teacher for behaviour and learning
 - GSE group special ed.

Other important factors

- **Regular scheduled review**; frequent initially, try to avoid ‘crisis’ appointments
- **Regular multidisciplinary review** if other healthcare professionals/school etc involved (can use email, brief phone conference)
- control ‘doctor shopping’
- actively engage key family members
- liaison with school and health school



Outcome

- Most children with pain syndromes improve and recover
- 25-50% of children with RAP have continuing abdominal discomfort in adulthood
- Children respond well to anxiety treatment
- Vulnerable children may need early intervention/prevention plans for high stress times

Who doesn't get better



- Parental fixation on undiscovered pathology
- Overwhelming and continuing stressors
- Severe child psychopathology
- Long history of multiple somatic complaints
- Severe family somatisation disorder

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