SYDNEY CHILDREN'S HOSPITAL RANDWICK

Is dividing and conquering better than one size fits all?

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SCH Chronic Pain Team

Overview

SYDNEY CHILDREN'S HOSPITAL RANDWICK

- Background introduction
- Literature review of paediatric chronic pain services
- Present clinic structure @ SCH
- Clinic assessment from point of view of physiotherapy
- Advantages of present structure
- Preliminary Evaluation
- Improvements

Background introduction

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- SCH Multidisciplinary Chronic Pain team typically reviews new patients within 1 hour
- Sessions run over time
- Patients and parents felt overwhelmed and unsatisfied
- Clinicians from various disciplines could not have thorough assessments.
- Space constraints
- A better clinic structure was needed

Features of Paediatric Chronic Pain Services

- Objectives
  - Guided by 2 types of models: **biopsychosocial** or **cognitive-behavioural** model
  - Goals include:
    - **Pain reduction and improvement in physical function**
    - Improving patient's and family members understanding of chronic pain
    - Offering coping strategies to manage emotional distress and disability, thereby altering their perceived pain and suffering
    - Encouraging self-management and proactive participation in treatment
    - Reduction of health care utilization

American Pain Society (2011), Munro (2004), Nova Scotia Chronic Pain Working Group (2006)

Features of Paediatric Chronic Pain Services

- Team composition
  - 1-3 medical specialists (paediatrician, pain specialist or anaesthetist)
  - Clinical psychologist
  - Physiotherapist
  - Nurse (1st point of contact for patients and family)
  - Occupational therapist
  - Social worker
  - Psychiatrist
  - Play therapist
  - Administrative staff

Types of Pain Facilities

- **Modality-oriented clinic:** Specific treatment, no interdisciplinary approach
- **Pain clinic:** Diagnosis and management only, no comprehensive assessment or treatment
- **Multidisciplinary pain clinic:** Multidisciplinary diagnosis and management, no research
- **Multidisciplinary pain centre:** Various disciplines of healthcare professionals, has research, part of medical teaching, inpatient & outpatient services

IASP (1991)

Main Features of Paediatric Chronic Pain Services

- Paediatric chronic pain services from Australia, UK, Canada and USA
- No perfect system used by all health care institutions
- Each program designed and developed to suit community needs

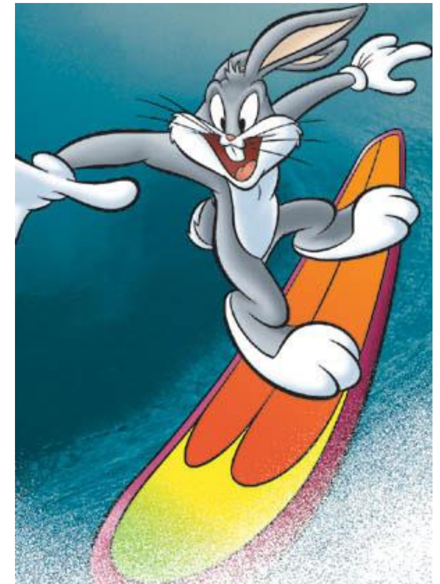
Main Features of Paediatric Chronic Pain Services

- Assessment structure (4 main types)

1. Child & parents in same room, session led by clinician with other professionals present
2. Child assessed by doctor & physiotherapist, family interviewed by psychologist or psychiatrist. Child later interviewed by psychologist/psychiatrist.
3. Child & family sees clinician only, referrals to other disciplines
4. Child evaluated by clinician & psychologist, findings are communicated and family decides on treatment modalities

Main Features of Paediatric Chronic Pain Services

- Assessment measures
  - Different age groups have different developmental levels
  - Systematic reviews show no single pain measure suitable for all ages and types of pain
  - No standard set used by all pain centres
  - PedIMMPACT for clinical research



McGrath & Gillespie (2001), Cohen et al. (2008), Munro (2004), Tsao & Zeltzer (2008)

Paediatric Initiative on Methods, Measurement and Pain Assessment (PedIMMPACT)

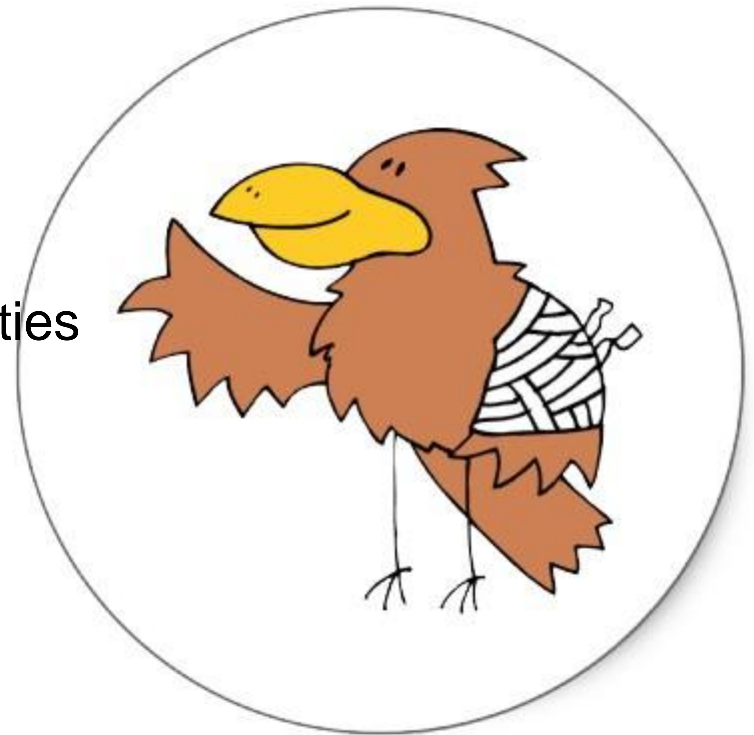
Pain Intensity	3-4 year-old	Poker chip tool
	4-12 year-old	Faces pain scale revised
	Above 8 year-old	Visual analog scale
Physical Function	2-18 year-old	PEDsQL
	Above 8 year-old	Functional Disability Inventory
Emotional Function	Below 7 year-old	PEDsQL
	7-17 year-old	Children's Depression Inventory
	7-17 year-old	Revised Child anxiety and Depression Scale
Role Function	6-18 year-old	PedMIDAS
	All ages	PEDsQL
	All ages	School attendance

Main Features of Paediatric Chronic Pain Services

- Feedback to child & family
  1. Team meeting without child & family, treatment discussed verbally
  2. Typed-out personalised plan with team members' contact details
  3. Team discussion in presence of child & family

Main Features of Paediatric Chronic Pain Services

- Treatment types
  - Pharmacotherapy
  - Psychology
  - Physiotherapy
  - Complementary & alternative modalities
    - Acupuncture
    - Art & recreational therapy
    - Massage
    - Hypnosis
    - Yoga



Present clinic structure at SCH

- 2 new patients scheduled every fortnightly Monday
- Patients may be local, rural, remote or from interstate
- Started in April 2011
- 2 separate assessments: medical/clinical psychology and physiotherapy/psychosocial/OT/play therapy. Each assessment is 60 mins
- Patient may start with either assessment.
- Team meeting without family to discuss management plan
- Feedback provided verbally and with personalised typed treatment plan (30mins)
- Follow- up appointments made

Example of treatment feedback plan

Assessment Date:27/06/2011

Patient: OD

Age: 7

Parents Names: CD

Contact Details:

HEALTH PROFESSIONAL SEEN

Doctor: Rowell/Wood

Nurse Consultant: Dave

Clinical Psychologist: Maline

Physiotherapist: Marianne

Social Worker: Louise

Occupational Therapist: Tracy

Play Therapist: Kristy

DIAGNOSIS: Traumatic amputation tip R great toe and R second toe 2 years ago. Signs of abnormal neuropathic signalling.

CLINIC RECOMMENDATIONS

Medications: Recommend gabapentin 100mg at night then 100mg morning and night, and Amitriptyline 12.5mg for 1 week then 25mg (at night

Physiotherapy: Functional desensitisation program to improve balance and reduce hyper- sensitivity given. Orthotics assessment.

Clinical Psychology: Work around strengths in social settings and sleeping in own bed at night, work on anxiety and underlying stress around the initial injury

Social Work: Plan to meet with mum again to continue with initial assessment.

OT: Sleep hygiene, school liaison

Play Therapy: leisure activities reviewed, interests

Parent Education: Recommend parents to attend

IDENTIFIED AREAS OF MANAGEMENT

School: Some questions as to how he is now struggling with current year 2 work, has recently changed school- small social group at school (7 boys only). Some issues with some bullying at school and older kids wanting too see the foot.

Sleep: Goes to bed but gets up in the early hours and gets into mums bed

Activity: Plays soccer and has a reasonable activity levels, but pain can be a problem

Point of view from Physiotherapy

- Objectives of physiotherapy
  - Provide appropriate baseline assessment
  - Prescribe an exercise program and follow-up
  - Present non-pharmacological pain Mx strategies, eg.InterX (TENS), Graded Motor Imagery, skill acquisition
  - Compare and confirm Functional Disability Inventory (FDI) scores of child and parent with practical assessment

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Functioning (FDI)

When people are sick or not feeling well, it is sometimes difficult for them to do their regular activities. In the last few days would your child have had any physical trouble or difficulties doing these activities Please click on one response to each question

	No trouble	A little trouble	Some trouble	A lot of trouble	Impossible
Walking to the bathroom	○	○	○	○	○
Walking up stairs	○	○	○	○	○
Doing something with a friend	○	○	○	○	○
Doing chores at home	○	○	○	○	○
Eating regular meals	○	○	○	○	○
Being up all day without a nap or rest	○	○	○	○	○
Riding the school bus or travelling in the car	○	○	○	○	○
Being at school all day	○	○	○	○	○
Doing the activities in gym class (or playing sports)	○	○	○	○	○
Reading or doing homework	○	○	○	○	○
Watching TV	○	○	○	○	○
Walking the length of a football field	○	○	○	○	○
Running the length of a football field	○	○	○	○	○
Going shopping	○	○	○	○	○
Getting to sleep at night and staying asleep	○	○	○	○	○

Components of initial physio assessment

- Walking on treadmill: 100m, 400m, up to 2km
- Number of sit ups and push ups in 1min
- Musculoskeletal examination
- Trial of InterX/TENS
- Assessing/teaching juggling (skills)
- Graded Motor Imagery as indicated
- Somatosensory testing (Research)
- Develop exercise & activity timetable (OT & Play)

Advantages (Physio)

- Some patients feel better after ‘endorphin release’ from exercise
- “Little more action, little less conversation”- verify what patient says about activity level
- Brings the pacing and goal setting concepts to reality
- Parents can see and acknowledge actual function of child

Advantages (Clinicians)

- Clinicians
  - Total 2 hours shared among 6 disciplines
  - Obtain finer details, discuss sensitive issues with fewer people
  - Addresses ‘space constraints’ in outpatient room: avoids awkward shuffling around during examination
  - Immediate provision of HEP (with other prescriptions)
  - Allows 10-15min initial assessment (ADL, handwriting) by OT

Advantages (Patients & Family)

- Enables discussion of sensitive issues with relevant & appropriate clinicians
- More privacy
- More comprehensive feedback
- More timely interventions
- Better understanding of chronic pain
- Not so overwhelming, facilitating improved information exchange

Preliminary Evaluation

- Difference between parent's and child's FDI
  - Association between Parent Catastrophizing Scale (PCS) and FDI
- Patient & families evaluation & satisfaction
- Clinician's evaluation & satisfaction

Patient & Parent Evaluation

	Child (N=5)	Parents (N=6)
Meeting Pt needs	8.4	8.12
Understanding the need to meet many professionals	8.8	7.3
1st Ax by doctor	1	2
Appropriate Mx plan	8.4	8
Overall Experience	8.6	8.5
Comments		•More in depth explanations •Good to have all services in one area

Clinician Evaluation

	Point Average (N=8)
Ability to assess pt/family	8.5
Pt/family understanding of initial Ax	6.75
Addressing of info in feedback plan	8
Rating of experience of new structure	8.375
Comments	•Improved and better structure •Understand patient better including their specific issues •Efficient Ax & more direct Rx plan •More room for improvement: direct & concise team discussion

Future Improvements

- Gathering information for future modifications
  - Is it better to have fewer patients per clinic?
  - Is it efficient to spend more time assessing new patients?
- Evaluating clinic structure (Is our new service and patient management more efficient?)
  - No. of follow-up clinic appointments
  - Progression of treatment– 3mth/6mth follow-up questionnaire
  - Duration to discharge
  - Discharge questionnaire evaluating ADLs, school attendance, social interaction etc.
  - Satisfaction of patient, parents and staff

"That's all Folks!"