Congratulations to our SIG President, Dr. Allen Finley

The American Pain Society recently announced that the 2008 Jeffrey Lawson Award will be awarded to Dr. Allen Finley. The Jeffrey Lawson Award was established in 1996 in memory of Jeffrey Lawson, whose mother brought to the attention of professional organizations the practice of performing surgery and other procedures on children without the benefit of analgesia. The award recognizes advocacy efforts to improve management of pain in children.

As the President of the Special Interest Group for Pain in Childhood, Dr. Finley is known to most of us. The award recognizes his strong advocacy for improved pain management for children in both developing and developed countries. His research and educational projects have recently taken him to Jordan, Thailand, China, Brazil, and elsewhere. He has published over 80 papers in peer-reviewed journals and has lectured widely, with more than 150 invited presentations on six continents. He started the PEDIATRIC-PAIN e-mail discussion list in 1993, bringing together pain researchers and clinicians from over 40 countries.

Dr. Finley will receive his award in May at the annual scientific meeting of the American Pain Society in Tampa, Florida.

SIG Pain in Childhood Council Elections

There will be a number of positions open for the Council of the IASP SIG on Pain in Childhood. All positions will begin August, 2008 at the IASP Congress in Glasgow, Scotland and have different lengths of term, depending on the specific role. These are as follows:

- President Elect (2008-2011; then President 2011-2014; a 6-year commitment)
- Secretary (2008-2012; a 4-year commitment)
- Treasurer (2008-2012; a 4-year commitment)
- Council Member at Large (2008-2013; a 5-year commitment)

Each candidate needs to be nominated by two SIG Pain in Childhood members. Please have two nominations sent to Gary Walco at gwalco@humed.com by April 15, 2008. There are no self-nominations. As was done last year, all voting will be conducted electronically.

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Pediatric Pain Management in Mexico

Following is an interview with Ma. Antonieta Flores Muñoz, MD, who shares some of her insights and experiences of working in the field of children’s pain management in Mexico. Dr. Flores is a Pediatrician at the General Hospital of Mexico. She is Professor of Algology at the Autonomous National University of Mexico (UNAM). She will shortly be completing her Master's degree in Clinical Research and is a Scientific Journalist. Dr. Flores is also a Council Member of the SIG Pain in Childhood. She is Chair of the Local Organizing Committee for the 8th International Symposium on Pediatric Pain, which will be held in Acapulco, Mexico.

*What pain services are available for children throughout Mexico?*

In Mexico, we have 4 hospitals with pediatric pain clinics:

1. General Hospital of Mexico (Hospital General de Mexico)
2. Children’s Hospital of Mexico (Hospital Infantil Federico Gomez)
3. Paediatric Hospital of The Mexican Institute of Social Security
4. National Institute of Pediatrics (Instituto Nacional de Pediatría)

All of them are in Mexico City and its valley that has a population of 22 million people. We need to open more across the rest of the country.

I work in the Pain Clinic of the General Hospital of Mexico that is considered the National Pain Management Training Centre. It is located in Mexico City. Our Pediatric Clinic is part of that centre; it was the first created in the country, in May 1993. It is the largest General Hospital in Mexico and is a teaching hospital. The patients come from all around the country, and they are poor. They don’t have social security. They have to pay a little money for the service, and many times they do not have enough money to pay for these services.

The main barriers are the socio-economic conditions. For example, some patients come from towns where there is not enough water. The parents work on agricultural fields. Malnourishment is another problem. Language becomes an issue since they speak indigenous dialects like Nahualt and don’t speak Spanish.

Mexico is a country with great contrast. There are wealthy people with large houses; they go to the private hospitals. There is another kind of medical service that is provided to workers in the private and public sector. In general terms, it is called Social Security. In this country, the Social Security owns hospitals and provides medical services.

*Please describe the pediatric pain service at your hospital.*

The pediatric pain service mainly provides for chronic pain and recurrent pain. We are two pediatricians, an anaesthesiologist, and two psychologists.

Also, acute pain patients are seen in Pediatric Surgery and Plastic Surgery. We care for hospitalized patients, and we have an outpatient clinic.

*What is a typical day like for you?*

Every day, I go first to see the hospitalized children, perform a clinical exam, write a note, and write prescriptions with a resident of Algology. Some times I dress up in a costume, especially when a child is sad.
I walk to the pain clinic (my hospital is 100 years old and is in the old style with many pavilions) to my tiny office and see outpatients with chronic and recurrent pain.

In the afternoon, I give a class to the residents.

**What are some of the challenges that you face in managing children’s pain?**

The challenges are to improve the access to better medical attention and access to analgesics, not only in the big hospitals. We need to take attention in all the country, in the province, no matter how poor it is.

Children suffer pain, not only from cancer, but also from parasite diseases, infections, burns, and due to environmental conditions that result from the low socio-economic situation.

**Do you have any thoughts about how the situation could be improved?**

- First, provide education on pediatric pain to the pediatricians, nurses, psychologists and other medical and paramedical professionals.
- Provide education to the general population, including teachers and parents, about pediatric pain.
- Promote access to analgesics.
- Promote access to health care for all the children who suffer pain.
- Promote research in pediatric pain.
- Make the people of the government aware of the problem.

**What improvements have you seen in how children’s pain is managed at your hospital?**

The first is that they receive opioids without disagreement of the medical staff.

This was because we insist in education to the residents and many medical sessions about pain in children.

**Do you have any other comments that you would like to share?**

I am grateful that the 8th International Symposium on Pediatric Pain will be held in Mexico. It is a way to help us. “Sharing Knowledge” (a theme of the Symposium) will lead to improvements in the attention received by children who suffer pain in countries with similar conditions to mine. Our quest will find an echo in the majority of the countries of the world.

Ma. Antonieta Flores Muñoz, MD
Pediatrician & Professor of Algology
Autonomous National University of Mexico

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**Implementation Matters:**

**Conundrums with Acetaminophen Use in Kids**

Brian Anderson, PhD, FANZCA, FJFICM
University of Auckland, New Zealand

The provision of adequate analgesia is not only humane, but also has physiological, behavioral, and economic benefits. Extreme hormonal and metabolic responses to stress are associated with increased morbidity and mortality.¹

Acetaminophen (paracetamol) is a mild analgesic. It remains the first drug of choice for mild to moderate pain in adults and children (WHO). In combination with other analgesic drugs, analgesia is better than with one drug alone. The use of acetaminophen instead of non-steroidal anti-inflammatory drugs in patients with arthritis was considered to represent a cost saving measure without compromising the quality of care. The use of acetaminophen has been shown to reduce opioid use, with concomitant advantages such as reduced nausea and vomiting.

Acetaminophen may cause hepatotoxicity, and it is fear of this adverse effect that has resulted in recommendations to restrict dose and duration of treatment. Hepatotoxicity is dependent on the balance between a) rate of toxic metabolite (NAPQI formation from CYP2E1), b) capacity of the safe elimination pathways of sulfate and glucuronide production, and c) initial content and maximal rate of synthesis of hepatic glutathione. Concerns about the need and use of acetaminophen to treat fever in the community fuel these recommendations.² Significant hepatic and renal disease, malnutrition, and dehydration increase the propensity for toxicity. Anticonvulsant medications may also increase the risk of hepatotoxicity.

Despite concerns of hepatotoxicity, acetaminophen continues to be prescribed for analgesia, albeit at doses (60-75 mg/kg/day) reduced compared to earlier times (90 mg/kg/day), for prolonged periods. It remains popular for minor procedural pain without any evidence of effect. Concentration-response relationships are infrequently described and only exist for tonsillectomy pain in children.³ It stays on the drug charts of children suffering hepatic dysfunction. It is prescribed for neonates where metabolic clearance and toxicity pathways remain undefined. Evidence of treatment effectiveness is often lacking because an age-appropriate pain score is missing from its position next to temperature, pulse, and blood pressure on the patient’s chart.

The reasons for this conundrum are multiple. There is no simple bedside test for toxicity. The drug is universally familiar, contributing to a denial that it can cause harm out-
side of acute self-poisoning. We, as benevolent care givers, are reluctant to not prescribe such a cheap and common panacea to our patients. Acetaminophen used at recommended doses has an impressive safety record. A randomized control study comparing acetaminophen to ibuprofen for the treatment of fever enrolled more than 27,000 children given acetaminophen 12 mg/kg/dose; there were no cases of liver failure or any other significant events among these children. Untoward effects are not observed in patients with mild hepatic dysfunction. Reports of neonatal toxicity are only associated with maternal ingestion before delivery. The WHO analgesic ladder suggests acetaminophen as first-line treatment. Despite evidence that it may have little benefit over the immediate introduction of opioids in chronic pain, for example, we are reluctant to drop it. Current ethical analgesic drug study design implores the principle of beneficence. Beneficence implies that the physician holds best interests of the patient utmost. If a randomized controlled trial is considered, then a placebo may be considered acceptable in a comparative add-on study design where a new treatment or placebo is added to an established management regimen (e.g., paracetamol for analgesia).

We remain hesitant to truly investigate this drug.

References

Upcoming Meetings

27th Annual Scientific Meeting of the American Pain Society
Tampa, Florida, USA, May 7-10, 2008
http://aps.confex.com/aps/2008/
• This will include a half-day during the meeting devoted to pediatric pain.

3rd International Multidisciplinary Conference on Pediatric Procedural Sedation (Sponsored by the Society for Pediatric Sedation and the Memorial University Medical Center)
Hyatt Regency Savannah, Savannah, Georgia, USA
May 28-30, 2008
www.pedsedation.org/
• Abstract deadline has been extended to March 21, 2008.

12th World Congress on Pain
Glasgow, Scotland, August 17-22, 2008
www.iasp-pain.org
Some of the topical workshops that have a pediatric focus currently scheduled for inclusion:
• “Children’s experience of pain: developmental, psychobiological, and treatment aspects”
• “Children’s pain management in developing countries”
• “Children’s pain: advocacy for enhanced pain treatment and palliative care”
• “Neuroimmune signalling in young and adult pain pathways”

The following plenary session will be given by John Collins:
• “Quality improvement and evolving research in pediatric pain management and palliative care”

7th International Forum on Pediatric Pain: "Assessing Pediatric Pain: Current Evidence and Practice"
White Point, Nova Scotia, October 2-5, 2008
www.pediatric-pain.ca/ifpp
• The deadline for empirical research poster abstracts is June 1, 2008.
• The confirmed topics for the meeting are: Assessing pain by self report; Assessing pain with behavioral measures; Assessing pain by facial expression; Pain assessment in infants; Pain assessment in children with cognitive impairment; Assessment of chronic pain; Using technology to assess pain; Putting pain assessment into practice; Cultural issues in pain assessment.

8th International Symposium on Pediatric Pain: “Sharing Knowledge with All Cultures”
Acapulco, Mexico, June 8-12, 2009
www.childpain.org/2009acapulco.shtml
• Abstract and registration deadlines will be posted on the PEDIATRIC-PAIN email list, and on the Special Interest Group website listed above.

OBJECTIVE: To conduct an evidence-based review of pediatric pain measures. METHODS: Seventeen measures were examined, spanning pain intensity self-report, questionnaires and diaries, and behavioral observations. Measures were classified as "Well-established," "Approaching well-established," or "Promising" according to established criteria. Information was highlighted to help professionals evaluate the instruments for particular purposes (e.g., research, clinical work). RESULTS: Eleven measures met criteria for "Well-established," six "Approaching well-established," and zero were classified as "Promising." CONCLUSIONS: There are a number of strong measures for assessing children's pain, which allows professionals options to meet their particular needs. Future directions in pain assessment are identified, such as highlighting culture and the impact of pain on functioning. This review examines the research and characteristics of some of the commonly used pain tools in hopes that the reader will be able to use this evidence-based approach and the information in future selection of assessment devices for pediatric pain.


BACKGROUND: Between 4% and 25% of school-age children complain of recurrent abdominal pain (RAP) of sufficient severity to interfere with daily activities. For the majority of such children, no organic cause for their pain can be found on physical examination or investigation. Although most children are managed by reassurance and simple measures, a large range of psychosocial interventions including cognitive and behavioral treatments and family therapy have been recommended. OBJECTIVES: To determine the effectiveness of psychosocial interventions for recurrent abdominal pain or IBS in school-age children. SEARCH STRATEGY: The Cochrane Library (CENTRAL) 2006 (Issue 4), MEDLINE (1966 to Dec 2006), EMBASE (1980 to Dec 2006), CINAHL (1982 to Dec 2006), ERIC (1966 to Dec 2006), PsycINFO (1872 to Dec 2006), LILACS (1982 to Dec 2006), SIGLE (1980 to March 2005), and JICST (1985 to 06/2000) were searched with appropriate filters. SELECTION CRITERIA: Any study in which the majority of participants were school-age children fulfilling standard criteria for RAP (Apley or the Rome II criteria for functional gastrointestinal diseases), randomly allocated to any psychosocial treatment compared to standard care or waiting list, were selected. DATA COLLECTION AND ANALYSIS: References identified by the searches were independently screened against the inclusion criteria by two reviewers. Data were extracted and analysed using RevMan 4.2.10. MAIN RESULTS: Six randomized trials (including a total of 167 participants) of cognitive behavioral interventions were identified, with data reported in ten papers. Five studies reported statistically significant improvements in pain, measured in a variety of ways, in children randomized to receive interventions based on cognitive behavioral therapy compared to children on wait lists or receiving standard medical care (Duarte 2006; Humphreys 1998; Robins 2005; Sanders 1989; Sanders 1994). The remaining trial (Hicks 2003) included a wider group of children with recurrent pain and too few with only RAP to provide interpretable data. AUTHORS' CONCLUSIONS: The included trials were small, with methodological weaknesses and a number failed to give appropriate detail regarding numbers of children assessed. In spite of these methodological weaknesses and the clinical heterogeneity, the consistency and magnitude of the effects reported provides some evidence that cognitive behavioral therapy may be a useful intervention for children with recurrent abdominal pain although most children, particularly in primary care, will improve with reassurance and time.


Recurrent abdominal pain (RAP) is a common gastrointestinal problem during childhood. It is not only a pediatric health problem, but may represent a risk factor for chronic pain, psychosomatic symptoms, and psychopathological problems later in life. Alterations in central pain processing and an attentional bias to potentially aversive somatic sensations could contribute to the unfavorable outcome of RAP during childhood. Fourteen children with RAP and 15 control children (age: 10-15 year) participated in an attentional task. Children had to respond to rare targets (tones) and ignore frequent either painful (pain threshold) or non-painful mechanical stimuli delivered at the hand. Event-related cortical potentials in response to the somatic stimuli and the tones were measured and stimulus intensity ratings, reaction time and number of errors were obtained. Painful as compared to non-painful stimuli elicited significantly larger N1, P2 and P3 components of the somatosensory-evoked potential (SEP) in all children. The RAP children responded with a significantly larger P3 to both painful and non-painful stimuli. No group differences
were found for the auditory-evoked potentials. Perceived stimulus and pain intensity, reaction time and number of errors did not differ between groups. Similar to findings in adults with functional gastrointestinal disorders (FGIDs), children with RAP did not show somatic hyperalgesia as revealed by unaltered pain thresholds and middle latency pain-evoked SEPs. However, they displayed an attentional bias to painful and non-painful (innocuous) somatic stimuli as indicated by an enhanced P3. This may represent an important mechanism not only for the maintenance of RAP, but also for the development of psychosomatic symptoms.


Models of stress-induced hyperalgesia state that exposure to stress can exaggerate subsequent pain experiences. Studies using both animal and human subjects have shown evidence for hyperalgesia as a function of stress [e.g., Jorum E. Analgesia or hyperalgesia following stress correlates with emotional behavior in rats. Pain 1988;32:341-48; Peckerman A, Hurwitz BE, Saab PG, Llabre MM, McCabe PM, Schneiderman N. Stimulus dimensions of the cold pressor test and the associated patterns of cardiovascular response. Psychophysiology 1994;31:282-90; Gameiro et al. Nociception and anxiety-like behavior in rats submitted to different periods of restraint stress. Physiol. Behav. 2006;87:643-49; Lucas et al. Visceral pain and public speaking stress: neuroendocrine and immune cell responses in healthy subjects. Brain Behav. Immun. 2006;20:49-56]. However, the role of stress in pediatric pain is not well understood. This study examined stress reactivity and pain tolerance and sensitivity in a population of children with Recurrent abdominal pain (RAP). Forty-nine children meeting criteria for RAP (28 female; mean age 13 years; range 9-17 years) were randomly assigned to either a condition in which they completed an experimental stressor paradigm (stress interview, serial subtraction task) followed by a pain task (cold pressor) or a condition in which they received the pain task prior to the stress tasks. Children who underwent the stress tasks before the pain task exhibited lower levels of pain tolerance than those who received the pain task first (p<.01); no differences were found between the two groups in pain threshold or pain intensity ratings. Further, pain tolerance was not related to individual differences in physiological reactivity (heart rate change) to the stressor. The present research demonstrates the first evidence of the occurrence of stress-induced hyperalgesia in a pediatric pain population.


OBJECTIVE: The purpose of this work was to evaluate the analgesic properties of oral sucrose during routine immunizations in infants at 2 and 4 months of age.

PATIENTS AND METHODS: A prospective, randomized, placebo-controlled clinical trial was conducted at a pediatric ambulatory care clinic. One-hundred healthy term infants scheduled to receive routine immunizations were recruited, randomly stratified into 2- or 4-month study groups, and further randomly assigned to receive 24% oral sucrose and pacifier or the sterile water control solution. The study preparations were administered 2 minutes before the combined diphtheria-tetanus-acellular pertussis, inactivated polio vaccine, and hepatitis B vaccine. Haemophilus influenzae type b vaccine was administered 3 minutes after the combined injection, followed by the pneumococcal conjugate vaccine, 2 minutes after the H. influenzae type b injection. The University of Wisconsin Children's Hospital Pain Scale measured serial acute pain responses for the treatment and control groups at baseline and 2, 5, 7, and 9 minutes after solution administration. Repeated-measures analysis of variance examined between-group differences and within-subject variability of treatment effect on overall pain scores. RESULTS: Two- and 4-month-old infants receiving oral sucrose (n = 38) displayed reductions in pain scores 2 minutes after solution administration compared with 2- and 4-month-old infants in the placebo group (n = 45). Between-group comparisons for the oral sucrose and placebo groups showed lower pain responses at 5, 7, and 9 minutes after solution administration. The oral sucrose and placebo groups demonstrated their highest mean pain score at 7 minutes, with a mean pain score of 3.8 and 4.8, respectively. At 9 minutes, the placebo group had a mean pain score of 2.91 whereas the mean pain score for the oral sucrose group returned to near baseline, reflecting a 78.5% difference in mean pain score (oral sucrose - placebo) relative to the placebo mean. CONCLUSIONS: Oral sucrose is an effective, easy-to-administer, short-acting analgesic for use during routine immunizations.


Information provision is an important aspect of preparing children for medical procedures. Parents and health professionals are often unsure of what to tell a child about a forthcoming medical procedure, how this information should be conveyed, and when information should be provided. The current article overviews the key theories underpinning information provision, such as self-regulation theory and schema/script theories. A theoretically derived Information
Provision Model is presented, which is designed to integrate the various processes involved in information provision. The literature on the content, format, and timing of information provision is reviewed. The role that individual difference factors may play in how children respond to information is described. Recommendations for clinical practice are outlined, together with an indication of the level of empirical support for each recommendation.


Over 2 million people in the United States are estimated to use acupuncture annually, primarily for musculoskeletal complaints and pain management, evidence that the integration of acupuncture into Western health care is increasing. Despite the increase in the quality of trials demonstrating the efficacy and safety of acupuncture in medicine, the pediatric acupuncture literature lacks the quantity and quality of the same body of evidence. Contributing to this paucity of evidence may be the acceptability of acupuncture in pediatric patients. There is an urgent need for high-quality randomized controlled trials on the use of acupuncture in the pediatric population. This review aims to highlight the evidence for use of acupuncture in pain and symptom management.


To investigate whether laser acupuncture is efficacious in children with headache and if active laser treatment is superior to placebo laser treatment in a prospective, randomized, double-blind, placebo-controlled trial of low level laser acupuncture in 43 children (mean age (SD) 12.3 (+/-2.6) years) with headache (either migraine (22 patients) or tension type headache (21 patients)). Patients were randomized to receive a course of 4 treatments over 4 weeks with either active or placebo laser. The treatment was highly individualized based on criteria of Traditional Chinese medicine (TCM). The primary outcome measure was a difference in numbers of headache days between baseline and the 4 months after randomization. Secondary outcome measures included a change in headache severity using a 10cm Visual Analogue Scale (VAS) for pain and a change in monthly hours with headache. Measurements were taken during 4 weeks before randomization (baseline), at weeks 1-4, 5-8, 9-12 and 13-16 from baseline. The mean number of headaches per month decreased significantly by 6.4 days in the treated group (p<0.001) and by 1.0 days in the placebo group (p=0.22).

Secondary outcome measures headache severity and monthly hours with headache decreased as well significantly at all time points compared to baseline (p<0.001) and were as well significantly lower than those of the placebo group at all time points (p<0.001). We conclude that laser acupuncture can provide a significant benefit for children with headache with active laser treatment being clearly more effective than placebo laser treatment.


The development of studies on neuroimaging applied to hypnosis and to the study of pain not only helps to validate the existence of a hypnotic state but also to ratify its therapeutic effects. These studies also enable us to understand how hypnosis is effective on the cortical level. It also helps us see, from another perspective, the mechanisms of pain leading perhaps to a different definition of pain. This article develops the latest knowledge in the domain of hypnosis and pain, and approaches the clinical practices and their applications in the management of pain in children.


For chronic pain of unclear origin (idiopathic), pharmacological therapy is often insufficient. Psychological treatment strategies have been developed and evaluated for adults with chronic pain. However, few such studies are seen with youths, and to date there is limited empirical evidence regarding the effectiveness of psychological treatment for generalized musculoskeletal pain syndromes in adolescents. Acceptance and commitment therapy (ACT) is a development of cognitive behavior therapy emphasizing exposure and acceptance. In this pilot study, 14 adolescents referred to the pain treatment service due to chronic debilitating pain were treated using an ACT-based approach. It was hypothesized that avoidance of pain and related stimuli was central to the disability seen among these patients, and that exposure and acceptance strategies could increase functioning and decrease pain. In contrast to emphasizing reductions in pain and distress, the treatment objective was to improve functioning by increasing the patient's ability to act in line with personal values in the presence of negative thoughts, emotions or bodily sensations. Following treatment, and retained at 3- and 6-month follow-up, improvements in functional ability, school attendance, catastrophizing and pain (i.e., intensity and interference) were seen. The outcome of this pilot study indicates that exposure and acceptance can be useful in the rehabilitation of adolescents with chronic debilitating pain. Randomized controlled studies are needed to empirically evaluate the effectiveness of this approach.

Children's pain is undertreated worldwide. Using a model of pediatric cancer pain management in Amman, Jordan, the authors demonstrated that an action research approach to pain service development resulted in a sustainable program of pain control. Barriers to care were due more often to health professionals’ misconceptions concerning pain and opioid use than to concerns related to cultural, religious, or societal beliefs. Successful implementation of a pain management program requires education, policy development, and support from several levels of hospital administration. Role-modeling and mentorship are important factors. Established knowledge translation theories explained some but not all of the findings. Outcomes included consistent pain assessment and documentation by nursing staff, increased consultation for pain management, and increased use of intravenous opioids.

Newsletter Naming Competition

We are looking for a name for this Newsletter. Readers are invited to send in suggestions to our Interim SIG Secretary: tiina.jaaniste@sesiahs.health.nsw.gov.au

Names should be short (probably no more than 3 words) and catchy. The winning name will be announced in the next issue.

Please send information for possible Newsletter inclusion to SIG Secretary, tiina.jaaniste@sesiahs.health.nsw.gov.au

SIG Objectives
• To promote education about pain in children.
• To share relevant information about children’s pain control.
• To advance our ability to alleviate children’s pain from an international and interdisciplinary perspective.
• To encourage research, particularly multicenter studies and studies that focus on unique problems of pediatric patients, including newborns.

Pediatric Pain Letter
Free, open-access, online, multidisciplinary, peer-reviewed commentaries on pain in infants, children, and adolescents.
Contributions are invited: www.pediatric-pain.ca/ppl

Encourage your friends to join the SIG…

See You at the Congress!

www.iasp-pain.org/worldcongress