

## *Pediatric Chronic Pain and School Avoidance: What's a Team to Do?*

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## *Objectives*



- Verbalize an understanding of school avoidance dynamics
- Identify key factors in assessing for school avoidance dynamics
- Identify effective interventions within a collaborative family health model

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## *School Anxiety*



- 80% of children have difficulty adjusting to school at some point
- Fleeting anxiety episodes at start of the school year
- May test parents' resolve by occasionally acting out to stay home from school
- Usually managed successfully by parents and teachers



Kearney, 2001

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### School Avoidance (SA)

- High rates of absenteeism or inability to attend full day
- Difficulty attending school is associated with:
  - ◆ Emotional and physical distress
  - ◆ Avoidant coping
  - ◆ Functional disability
- Difficulty attending school is not associated with:
  - ◆ Serious misconduct or antisocial behaviors
  - ◆ Truancy

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### SA Prevalence



- Affects 1-5% of all school age children (Burke & Silverman, 1987)
- Occurs equally across genders, ages, & socioeconomic groups
- 66% of youth with SA present with somatic symptoms (Stickney & Miltenberger, 1998; Bernstein et al., 2001)
  - ◆ Dizziness, sweating, headaches, shakiness/trembling, chest pain, palpitations, blurred vision, SOB, weakness, fatigue
  - ◆ Abdominal pain, nausea, vomiting, diarrhea
  - ◆ Back pain, joint pain, difficulty walking

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### Common Themes Seen with SA

- Escalating functional disability
- Disproportional symptom severity
- Unexpected treatment response
- Symptom onset and course
- High stress temperament



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### Meet our Inpatient and Outpatient Pain Teams

- Acute, Chronic, Palliative Care Programs
- Medical & mental health integration
- Work collaboratively with families, HCPs, schools
- Dedicated team of pain experts includes:
  - ◆ Pediatric anesthesiologists
  - ◆ Psychologist
  - ◆ Family therapist
  - ◆ Advance Practice Nurses, clinic nurse, research nurse
  - ◆ Social worker
  - ◆ Physical & occupational therapists
  - ◆ Research psychologist

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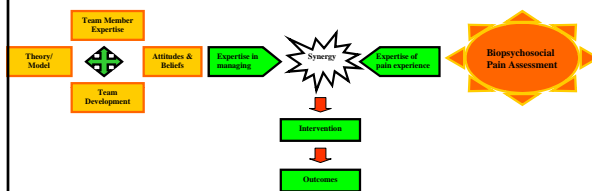
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### Model of Pediatric Chronic Pain Management



Ladwig, R. "Modular Education in Pediatric Institutions: Changing Culture and Attitudes in the Management of Pediatric Pain" 6th International Symposium on Paediatric Pain. Co-presenters: E. Jeffress, D. Jury, P. Violano, L. McDonald. Sydney, Australia. June, 2003

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### "Model" of Pediatric Acute Pain Management

- Assess
- Diagnose/Plan
- Intervene
- Evaluate
- Intervene
- Evaluate
- Refer....

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*Meet Patient A: Headache*



- Hx: H/A 1 year PTA, possible pseudo-tumor
- No H/A x 6 months
- 9 day PTA, severe unrelenting H/A, taken to outside hospital
  - ◆ MRA/MRI x 2; questionable mild chairi malformation
- Amitriptyline, depakote, hydromorphone PCA, 5-day course methylprednisolone
- Transfer to CHW

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*Patient A (H/A) Inpatient Stay*



- Assess:
  - ◆ Throbbing, entire head, can be sharp
  - ◆ - n/v, photophobia
  - ◆ + dizziness, overall weakness, tingling legs
  - ◆ Mom: + migraines
- Intervene:
  - ◆ D/C PCA basal & decrease dose
  - ◆ Change depakote to ER, increase amitriptyline dose
  - ◆ Start diclofenac tid prn; tramadol bid prn

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*Evaluate: Patient A Day 1*

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*Inpatient Stay*



- Intervene:
  - ◆ D/C PCA; start oral hydromorphone
- Evaluate:
  - ◆ Pain decreased to 3/10
- Intervene:
  - ◆ Patient D/c'd
  - ◆ F/u in chronic pain clinic

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*Evaluate: Patient A Day 2*

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*Evaluate: Patient A Day 3*

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*Evaluate: Patient A Day 4 (discharge)*

Acute Pain Service Impression....

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*Meet Patient B: Abdominal pain*



- 12 yo female
- Abdominal pain
- Numerous ER visits
- Admitted - 2 day stay
- Admitted - 4 days after d/c (ex lap/appy)
- Pain clinic 10 days later
- Admitted 1 day stay ERCP 1 month later
- No further admissions

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*Patient B: Inpatient APS Consult*



- Assess:
  - ◆ CC: abdominal pain
  - ◆ HPI: 12 yo w/abd pain of unclear etiology. W/U to date has not revealed a source
  - ◆ ROS: As above; labs wnl
  - ◆ PE: Deferred
  - ◆ Current medications: None
  - ◆ VS: T: 36, BP: 108/55 HR 77 RR 24
  - ◆ Pain scores: 7-8/10; sedation 4-5
  - ◆ No relief w/amitriptyline, tramadol, roxicet

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*What Should be in an Assessment or Consult?*

- Place: \_\_\_\_\_
- Amount: \_\_\_\_\_
- Intensifiers: \_\_\_\_\_
- Nullifiers: \_\_\_\_\_
- Effects: \_\_\_\_\_
- Description: \_\_\_\_\_

Lynch, M. (2001). Pain as the fifth vital sign. *Journal of Intravenous Nursing*, 24 (2), 19-85-94.

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*Compare, Contrast, Critique*

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| <ul style="list-style-type: none"> <li>● Hx: H/A 1 year PTA, possible pseudo-tumor</li> <li>● No H/A x 6 months</li> <li>● 9 day PTA, severe unrelenting H/A, taken to outside hospital           <ul style="list-style-type: none"> <li>◆ MRA/MRI x 2; questionable mild chairi malformation</li> </ul> </li> <li>● Amitriptyline, depakote, hydromorphone PCA, 5day course methylprednisolone</li> <li>● Transfer to CHW</li> </ul> | <ul style="list-style-type: none"> <li>● CC: abdominal pain</li> <li>● HPI: 12 yo w/abd pain of unclear etiology. W/U to date has not revealed a source</li> <li>● ROS: As above; labs WNL</li> <li>● PE: Deferred</li> <li>● Current medications: None</li> <li>● VS: T: 36, BP: 108/55 HR 77 RR 24</li> <li>● Pain scores: 7-8/10; sedation 4-5</li> <li>● No relief w/amitriptyline, tramadol, roxicet.</li> </ul> |
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*RN Admission Note*

- 12 yo admitted from EDTC with chronic abdominal pain
- 3 mo hx RUQ "under ribs" that on a good day is 5-6/10; otherwise mostly 10/10
- 11 pound weight loss, has an appetite, but eats less
- Endoscopy & colonoscopy results pending
- Tramadol taken without relief; distraction helps sometimes
- Has missed 2 weeks of school over 3 months
- Currently pain 7/10, tender to touch, BS +
- Declined meds, child life consult ordered, MD aware of pain scores
- Mom voicing concerns about not getting answers & doesn't want to leave without knowing a cause

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*Intervene*



- Begin gabapentin 200mg tid and increase to 300mg tid by d/c if tolerated, then to a max of 600mg tid in 100mg increments
- 2mg diazepam and/or 100mg tramadol PRN anxiety/pain
- Sleep aid tonight as sleep trial
- Comprehensive outpatient pain appointment made for 8 days from now

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*Evaluate: Patient B*



- Day 1
  - ◆ Pain Scores 6 – 9/10, mostly 9
- Day 2
  - ◆ Pain scores 7-10/10 (mostly 10)
  - ◆ Valium & tramadol 1-2 times per day
  - ◆ APS:
    - Patient slept overnight which was one of our goals. Continue current regimen. Going for nuclear med test
    - Called at night, increased gabapentin

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*Evaluate: Patient B*

- Day 3
  - ◆ APS met with mom & patient re: discharge planning
  - ◆ Called in prescription for gabapentin
  - ◆ Encouraged good sleep, exercise, eating habits
  - ◆ F/U in chronic pain clinic

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### *Patient B: Admit 2*



- Assess: APS consult:
  - ◆ Worsening abd pain; extensive w/u negative
  - ◆ Per mom: pain started in October, worsened at the end of 2009; frequent school absences; admitted 1/4, has not attended school this year (1/12/10)
  - ◆ Took her to school yesterday, but pain worsened so couldn't go
  - ◆ Pain has profoundly affected her ability to function
  - ◆ Current medications: Amitripyline 20mg; gabapentin 400mg tid; ambien 10mg hs; tramadol 100mg q6h prn; diazepam 2mg q6h prn

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### *Evaluate: Patient B, 2<sup>nd</sup> Admission*



- Pain Scores
  - ◆ 9 – 9.5 – 10
- Intervene:
  - ◆ Increase gabapentin to 600mg tid
  - ◆ Keep appt with chronic pain clinic tomorrow
  - ◆ Diagnostic Lap



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### *General Course Admit 2*



- Pain scores stayed 5-10
- 3 - 6/10 after exploratory lap
- 0 - 2/10 day of d/c
  
- ERCP to be done as outpatient
  
- Acute Pain Service Impression....

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*Inpatient Treatment Patients A & B*

- Assessment (varying in depth)
- Interventions to decrease pain
- No psychiatry or psychology consult
- Possible child life consult for distraction/relaxation
- Referral to chronic pain clinic

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*Symptoms Resulting in Referral*

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| <ul style="list-style-type: none"> <li>● Patient A           <ul style="list-style-type: none"> <li>◆ Mismatch of pain scores and activity</li> <li>◆ Many after school activities</li> <li>◆ Timing of admission (1/23)</li> <li>◆ Sudden improvement without reason</li> <li>◆ Mom with chronic condition</li> <li>◆ "Intuition" by APS chronic pain MD</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>● Patient B           <ul style="list-style-type: none"> <li>◆ 3 month history</li> <li>◆ Timing of admissions (1/4, 1/12)</li> <li>◆ 2 admissions within a week of each other</li> <li>◆ Mismatch of pain scores and activity</li> <li>◆ School absences/timing</li> <li>◆ Tried to go to school...pain got so much worse <small>29</small></li> </ul> </li> </ul> |
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*General Cues for Referral*



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| <ul style="list-style-type: none"> <li>● <u>Individual factors:</u> <ul style="list-style-type: none"> <li>◆ Anxiety/Depression/Learning disability</li> <li>◆ Challenging temperament</li> <li>◆ Impaired social functioning</li> </ul> </li> <li>● <u>Family factors:</u> <ul style="list-style-type: none"> <li>◆ Medical/mental illness in family</li> <li>◆ Marital, work, or financial strains</li> <li>◆ Poor insight</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>● <u>Impact of illness/Pain</u> <ul style="list-style-type: none"> <li>◆ Sig. school absences</li> <li>◆ Major family accommodation</li> <li>◆ Somatic focus</li> </ul> </li> <li>● <u>Medical history:</u> <ul style="list-style-type: none"> <li>◆ Shifting medical problems</li> <li>◆ Unexpected treatment responses</li> <li>◆ Multiple referrals <small>30</small></li> </ul> </li> </ul> |
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### *Inpatient Medical Assessment/Management*

- Biomedical
- Dichotomizing
- Focus on area of specialty
- Initially very superficial psychosocial assessment
- Insufficient experience with presentation of biopsychosocial pain problems
- May have had past negative experience when addressing psychosocial
- Psych consult is seen as the intervention

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### *HCP Mistaken Beliefs/Conclusions*



- Medical work-up first, then look at psychosocial:
  - ◆ But they seem so nice, provider bias
- Tunnel Vision:
  - ◆ She has gastritis, that explains EVERYTHING (i.e. there can't be anything more to it)
- Leave no stone unturned:
  - ◆ When in doubt...
- Underlying issue:
  - ◆ Medical team is not always skilled or comfortable with assessing or addressing psychosocial possibilities

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### *Challenges for Addressing Psychosocial Factors Inpatient*

- Hard to shift from all medical to psychosocial
  - ◆ Family is expecting a medical diagnosis and preparing for the worst
  - ◆ "All the tests are negative, and she can go home" sounds like a dismissal and abandonment
- Often families *hear*, "It's all in her head"

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### What We've Learned



- Family may not be ready to hear, understand, or believe there's psychological factors making the child vulnerable & the body is responding in a physical manner
- Symptoms are always real...but in response to stress related factors by generating pain (for example)
- Always "and", not "or" (physical and psychological, not or)
- Medical system assists families down the medical tract
- Most families have insight, question psychological factors...but if no one asks, it seems irrelevant and unimportant

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### Inpatient Phrasing for Families & HCPs

- Pain is real
- Psychosocial factors may be impacting the pain
- There may be psychological factors making the child vulnerable & the body is responding in a physical manner
- Our goal is to help the patient manage the pain while working on what's causing the pain...
- Onward to the chronic pain clinic
- 95% of patients/families accept this, unless they've heard "it's all in your head"
- Anxiety, "I see you're a bit anxious **and** I think it's impacting your pain...."



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### Onward to the Chronic Pain clinic



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### *Chronic Pain Referral*



- Medical history
- Psychosocial history
- Inpatient course
- Acute pain team's assessment
- "Where is the family?"

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### *Multidisciplinary team evaluation*

- 1½ hour interdisciplinary evaluation
  - ◆ Joint interview with MD and mental health provider
  - ◆ OT/PT when applicable
  - ◆ Written biopsychosocial treatment plan
- Medical management, mental health treatment, school plan coordination; collaboration with local providers

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### *Patient A (H/A) Psychosocial History*



- Lives with mother and father
  - ◆ Parents both work outside the home
  - ◆ Father recently had a heart attack
- School/Social functioning
  - ◆ Good student – A/B; Grades have now dropped
  - ◆ Well-liked by peers
  - ◆ Involved in: violin lessons, 3 dance classes, theater class, religious education
  - ◆ Likes school; verbalizes desire to attend
  - ◆ Denies stressors, feelings of anxiety, depressed mood

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*Patient A (H/A)  
Further Assessment in Pain Clinic*



- Recently withdrew from activities (violin, dance, theater)
- Patient stated, "my brain is telling me to cut some of the activities out"
- Mother and patient both become very anxious and worry the H/A will never go away

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*Patient B (abd pain) Psychosocial History*



- Lives with mother, father, and older sister
  - ◆ Parents both work outside the home
  - ◆ Sister diagnosed with fibromyalgia
- School/Social functioning
  - ◆ New school this year; grades B's and C's
  - ◆ Has made new friends at school
  - ◆ Likes school; verbalizes desire to attend
  - ◆ Denies stressors or feelings of anxiety or depressed mood

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*Patient B (abd pain)  
Further Assessment in Pain Clinic*



- Parents describe patient as laid back, not much of a worrier
- Mother does believe patient has anxiety about returning to school
- Difficulty sleeping before school; symptoms peak in the mornings
- As return to school was discussed during the appt, patient became noticeably "fidgety".
- Team identified School Avoidance Pattern

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*School Avoidance "Frame"*

- Common occurrence/Good kids/Good parents
- Severe physical symptoms/Medical findings minimal
- Subconsciously, the body is rescuing child by producing symptoms/symptoms that are real, not feigned
- Previously doing well in school/Often deny stress and emphasize the desire to return to school/previous activities, but physical symptoms prevent him/her from doing so
- Miss a lot of school/Functionally disabled/Suffer terribly
- Confused about what is going on

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*School Avoidance "Frame"*

- Once SA begins, it takes on a life of its own
- Takes child down and out/Lost sense of competence
- SA complicates symptoms presentation/SA generates symptoms
- Common patterns: Morning desperation, windups, no medical explanation for severity of symptoms
- Will be very hard work for youth and parent
- Coordinated plan between parents, school, team, and child is crucial



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*Outcomes of Patients A & B Team Assessments*

- Change medications
- Meet with a mental health provider for pain and stress management
- Pain team will contact school
- F/U in 1-2 months
- Call with questions



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### *Nursing Role: Supporting the Frame*

- Telephone triage
- Reinforcement of cognitive-behavioral therapy
- Collaboration of medication management

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### *Telephone Triage*



- Clinic RN is available M-F, 0800 – 1630
- Answer questions, provide support, reinforce treatment plan
- 721 calls, ranging from 2 – 103 min in length
- Most common call reasons: Increased pain, Medication side effect, School excuse request
- Overall call volume was more than 2x greater during the winter months (Jan-Mar, n=259) than in the summer months (Jun-Aug, n=106)

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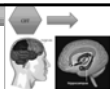
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### *Cognitive-behavioral Therapy*



“is a form of psychotherapy that emphasizes the important role of thinking in how we feel and what we do”

National Association of Cognitive-Behavioral Therapists  
<http://nacbt.org/whatiscbt.htm>

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*Applying CBT Principles to the Nursing Role*

- Education and provision of information
- Reassurance and reduction of anxiety
- Cognitive restructuring
- Problem solving
- Goal setting

Richardson 2006



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*Education and Provision of Information*

- Information can improve coping skills by decreasing anxiety (Richardson, 2006)
- Parents often have questions after initial intake appointment
- RN provides information on child's pain problem, treatment & rationale, and medications

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*Reassurance and Reduction of Anxiety*

- Parental role uncertainty
- The anxious caller
- LISTEN
- Normalize feelings of anxiety
  - ◆ "This is a stressful situation"
  - ◆ "You are having a very normal reaction to an abnormal situation"

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### *Cognitive Restructuring*

- Identify maladaptive coping behaviors and encourage coping skills
- Challenge parents' beliefs
  - ◆ "What makes you think the medical team is missing something?"
  - ◆ "I'm hearing that the school day was very difficult for her, BUT she made it through the day!"

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### *Problem Solving*

- Parents call feeling stressed and overwhelmed
- Break down pain treatment plan piece by piece
  - ◆ "Try giving her the pain medication about a half hour before physical therapy"
  - ◆ "Have him try to eat something now, and then take him to school for the afternoon"

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### *Goal Setting*



- Pain team's overall goal: Increased function, decreased pain
- RN can work with parents to develop shorter goals
  - ◆ "Tomorrow she will attend school for at least 2 hours"
- Always acknowledge progress, praise parents
  - ◆ "I know the morning must have been difficult, but you did everything we asked of you, and he made it to school"

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*Patient A (H/A)*



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*Patient A (H/A)*



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*Patients A and B Phone Calls*



- Patient A (H/A)
  - ◆ Mom called 3 times before initial intake
  - ◆ Mom called 2 – 3 times/week from initial intake to 1<sup>st</sup> f/u visit (2 months)
  - ◆ Average length of call: 13 minutes
  - ◆ Total time: 170 minutes
- Patient B (abd pain)
  - ◆ No calls to clinic
  - ◆ Total time: 0 minutes

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### Phone Call Tips



- "Tell me what's going on."
- "Do you see a stress component to his pain?"
- "It is very common to have a difficult time returning to school after a break."
- "This has been a pattern for her in the past, and we know that the sooner she gets back to school, the better she will feel."
- "I will call tomorrow to see how the morning went."
- "What questions do you have?"

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### Patient A (H/A) Outcome



- Family did not F/U with mental health after initial visit
- Symptoms continued to escalate; numerous calls to clinic
- Physical therapy, massage therapy and acupuncture-minimally helpful
- 2 weeks pain-free, followed by 10/10 HA
- Family accepted school avoidance frame; began working with therapist and sending pt to school
- Patient finished 2<sup>nd</sup> semester attending school daily
- June – Pain resolved; stopped all pain meds

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### Patient B (abd pain) Outcome



- Family accepted school avoidance frame & began working with family therapist
- 1 week later – attending school 2 hours/day; began complaining of back pain
- February – attending school 3h/d, decreased pain complaints
- May – attending school fulltime; when asked, patient endorses pain, but no longer reports pain; patient states the pain does not interfere with any activities

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### Effective Mental Health Language for Families

“Your child has a complex pain problem that has affected all areas of his life and needs to be addressed from a rehabilitation standpoint. In addition to medical treatment, I would like to refer your child to a therapist to address the impact of the pain on your child’s life and to help him/her learn skills to better manage the pain and challenges of rehabilitation in efforts to restore functioning. The therapist will teach your child stress management and relaxation skills.”

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### Summary



- **Subgroup** of pediatric chronic pain patients
- Requires **interdisciplinary** approach
- Inpatient is just the beginning
- Provide the **context**
- **AND**, not OR
- Nurses have the skills to utilize CBT

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### References

- Kearney, C.A. (2001). *School refusal behavior in youth*. Washington, DC: American Psychological Association.
- Ladwig, R., & Khan, K. (2007). School avoidance: Implications for school nurses. *Journal for Specialists in Pediatric Nursing*, 12(3), 210-212.
- Richardson, C., Adams, N. & Poole, H. (2006). Psychological approaches for the nursing management of chronic pain: Part 2. *Journal of Clinical Nursing*, 15, 1196-1202
- Sato, A.F., Hainsworth, K.R., Khan, K.A., Ladwig, R.J., Weisman, S.J., & Davies, W.H. (2007). School Absenteeism in Pediatric Chronic Pain: Identifying Lessons Learned from the General School Absenteeism Literature. *Children’s Health Care*,

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