

# Patient- and parent-reported pain prevalence and management at a Canadian pediatric hospital.



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## Introduction

- 4 epidemiological studies in Canada over past 20 years indicate high levels of pediatric inpatient pain
  - 21-64% of children report moderate-severe pain in past 24 hours of hospitalization
- This is despite many recent advances in pediatric pain assessment and management
- It is unclear if these advances have translated into improved clinical practice

## Purpose

- Replicate and extend previous epidemiological study conducted at IWK Health Centre in Halifax, Canada (Cummings et al., 1996)
- Objectives:**
  - Estimate prevalence of inpatient pain
  - Identify use of pharmacological and non-pharmacological strategies
  - Identify provider of pain care received

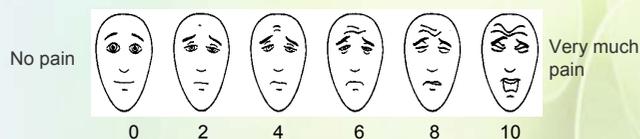
## Methods

- Pain interviews conducted on 4 weekdays approximately 5 weeks apart
- Potential participants:
  - Parents/guardians or inpatients ≥5 years of age on 4 included units at IWK Health Centre (excluding NICU, Emergency, & Psychiatry)

## Pain Interview

- Self- or parent-rating of patient's **current** pain at time of survey, **worst** pain in past 24 hours of hospitalization & **usual** pain over those 24 hours
- Self- or parent-rating of **pain treatment threshold** (i.e., pain level when child desires pain treatment)

Faces Pain Scale-Revised (Hicks et al., 2001)



- Indicate any **pain care** received
  - Identify who helped
  - Use of pharmacological & non-pharmacological strategies
- Interviews 5-20 minutes in length



## Results

- Data for **107 patients** (65.6% participation rate)
  - 76 parent/guardian & 31 patient interviews

Total patient rooms (4 study days) (n=302)

Empty patient room (n=89)

Potential participants (n=213)

Eligible (n=163)

- Interviewed (n=107)
- Declined pre-consent (n=12)
- Declined during consent (n=22)
- No contact after 3 tries (n=17)

Ineligible (n=50)

- Nurse deemed patient/family inappropriate (e.g., too ill) (n=17)
- Patient in isolation (n=22)
- Participated in previous study day (n=7)
- Non-English speaking (n=4)

- In the past 24 hours of hospitalization:
  - 101/107 (94.4%) reported some pain (≥1/10)
  - 57/107 (53.3%) reported currently experiencing no pain
  - 30/107 (28.0%) reported no pain as usual experience
- Mean pain treatment threshold=4.69/10 (SD=2.52)
- Pain above *individual patient* pain treatment threshold considered **clinically significant pain** for that patient

### Clinically Significant\* Pain

	Current Pain	Worst Pain	Usual Pain
Prevalence	8 (7.5%) M=5.75 (2.25)	66 (61.7%) M=8.00 (1.92)	26 (24.3%) M=6.27 (2.15)
Medication			
Given	6/8 (75.0%)	45/66 (68.2%)	21/26 (80.8%)
Helpful	5/6 (83.3%)	41/45 (91.1%)	19/21 (90.5%)

### Key Provider of Care for Any Pain (≥1/10)

Nurse	27/50 (61.4%)	50/100 (50.0%)	45/77 (58.4%)
Parent(s)	9/50 (18.0%)	27/100 (27.0%)	21/77 (27/3%)
Doctor	8/50 (16.0%)	8/100 (8.0%)	5/77 (6.5%)
Other	0 (0%)	5/100 (5.0%)	0 (0%)
No one	6/50 (12.0%)	10/100 (10.0%)	6/77 (7.8%)

### Most common non-pharmacological strategies

Comfort Positioning	65%
Apology	68%
Empathy	72%
Humor	74%
Reassurance	87%
Praise	92%
Cognitive Distraction	92%

## Conclusion

- Prevalence of clinically significant pain (7.5-61.7%) appears comparable to previous studies
- Most participants reporting pain intensity above their preferred treatment level (i.e., pain treatment threshold) also report receiving helpful pain reducing medication

**Key Reference:** Cummings, Reid, Finley, McGrath, & Ritchie (1996). Prevalence and source of pain in pediatric inpatients. *Pain*, 68, 25-31.



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